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THESIS

INVESTMENT STATUS OF RAILROAD SECURITIES

by

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PART I

INDUSTRY ANALYSIS

IMPORTANCE OF RAILROAD SECURITIES

With little more than six per cent of the world's area and less than seven per cent of its population, the United States has more than thirty-three per cent of the world's railway mileage and far more than one half of the aggregate railway capacity. Reckoned together the railways of the United States represent the largest single "vested interest" in the world. In 1935 the railroad securities held by the public amounted to the staggering total of $18,342,297,429, divided into $7,001,705,892 in capital stock and $11,340,-591,537 in funded debt. On these securities approximately $663,555,159 are paid annually in interest and dividends. The securities are widely held and have constituted one of the most attractive fields for investment. For years railroad bonds and even stocks were regarded as prime securities. In fact, at times they were considered as constituting for all practical purposes the only investments worthy of consideration.

Together with the direct owners of railroad securities the vast majority of American people have an indirect financial interest in the railroads, for a sizeable part of the investments of our insurance companies and savings banks are in railroad bonds. In fact, railroad bonds were the leading division, approximating forty-five per cent of the

$5,853,167,000 corporate bonds held by leading life insurance companies on December 31, 1936, or about thirteen per cent of their total assets. Any financial disaster, therefore, to the railroads would affect practically everyone in an investment way. This widespread economic interest is an important reason for the unusual financial aid extended to the railroads in their extreme distress during the last depression and even to this very date. One reason why so many conservative funds are still invested in railroad securities is that it has been very difficult for large institutions, banks and insurance companies, to shift their investments out of this field, either because substitutes adequate in amount were unavailable, or because of the necessity of satisfying legal requirements.

RAILROAD GROWTH

The superiority of railroads in inland transportation was definitely established by 1850. At that time much of the public domain, which had been recently augmented by the annexation of Texas and the region including the present state of California, was totally unsalable and in order to attract settlers and induce sales transportation was necessary. It was a natural expedient then for the Government to devote a fraction of the then valueless lands to render the remainder a profitable asset. This was achieved by the land-grant policy which began in 1850. The total area grant-

ed to the railroads was approximately 215,000,000 acres.

A great railroad building boom resulted largely as a consequence of the land-grant policy and ended in the construction of an excessive amount of mileage operated by a number of competing companies. A good many of the railroads were built on the theory that they would develop the country through which they were to run and thus justify their construction at a later date. Their building in many cases was undertaken purely from a speculative standpoint. As was to be expected this over-stimulation led to excessive competition for traffic during times when the aggregate demand for transportation was insufficient to afford a fair return upon railway investments. The competition resulting from this wild construction finally became so intense that many abuses developed. As a result many railroad failures occurred and there ensued a period of mergers which gave to many railroad systems such added strength that some of them began to disregard the interests of the public. The abuses became so acute that it finally became necessary in 1887 for the United States Government to regulate the railroads in the interest of the public. As has always been the case, this Federal regulation at its inception was mild but became increasingly more severe until today the Government, through its agencies exercises virtually complete control over our railroad system.

The rapid growth of the railroads paralleled the country

in both population and production for a good many years. But expansion cannot last forever and the year 1920 marks the close of a ninety-year cycle of expansion and prosperity for the railroad industry. That this year marks the approximate peak of railroad growth can be best shown by the following table.

Year	Population	Railway Mileage	Rail Oper. Revenues (millions)	Revenue Per Ton Miles (millions)
1900	76,129,408	193,346	1,487	7.84
1905	84,219,378	216,820	2,082	8.22
1910	92,267,080	240,293	2,812	7.99
1915	99,342,625	253,789	2,956	7.89
1920	106,421,621	252,845	6,311	11.35
1925	115,378,094	249,398	6,123	10.92
1930	122,775,046	249,052	5,281	10.55
1935	127,521,000	241,822	3,452	9.43

Prior to 1920 railroads had progressed despite all obstacles, overcoming the destructive effects of uncontrolled expansion, stock market manipulations, floods, wars, droughts, mounting taxes, restrictive legislation and new forms of competition. But during that time the railroad industry was generating the factors and breeding the weaknesses which are

responsible for its present plight. As early as 1916 the relative popularity of railroad stocks, as measured by the Dow Jones averages for rails and industrials, was more or less waning.

ECONOMIC POSITION DECLINING

A study of the following table reveals the railroads retrogression since 1920.

RAILROAD TRAFFIC FACTORS

Miscellaneous Statistics	Percentage Change 1922-29	Percentage Change 1929-35
U. S. Population	+ 11	+ 6
Industrial production	+ 40	- 12
Steel production	+ 57	- 14
Automobile production	+ 103	- 18
Passenger car registrations	+ 113	+ 5
Truck registrations	+ 146	+ 19
Revenue bus passengers carried	*+ 26	+ 85
Airplane passengers carried	*+2,660	+ 538
Airplane express carried	*+7,140	+2,690
Railroad Statistics		
Total operating revenues	+ 13	- 35
Total operating expenses	+ 2	- 35
Net railway operating income	+ 63	- 36
Revenue freight per ton miles	+ 32	- 24
Passenger miles	- 12	- 28

*1926-29

Source: Computed by Poor's (Railroad data from ICC reports)

The table on page 6 is of sufficient importance and significance to warrant considerable attention. During the greatest of all American boom periods, that from 1922-29, industrial production increased 40 per cent, steel production 57 per cent and railroad traffic - revenue freight ton miles - increased only 32 per cent and passenger miles actually decreased 12 per cent. This decline in passenger-miles can easily be explained by again referring to the table. Automobile production during the great boom increased 103 per cent, truck registrations 146 per cent; although travel was greatly stimulated during this period, other transportation agencies, rather than the railroads, were utilized as is evidenced by the 2,660 per cent increase in airplane passengers carried and the 26 per cent increase in revenue bus passengers carried during the period 1926 to 1929.

In the seven year period following 1929 industrial production showed a decrease of 12 per cent and steel production a decrease of 14 per cent. However, total operating revenues of railroads declined 35 per cent during the same period and revenue freight ton miles declined 24 per cent and passenger miles declined 28 per cent. While during the same period passenger car registrations, truck registrations, revenue bus passengers carried and airplane passengers carried, all showed substantial percentage increases.

The only conclusions to draw are that railroads did not share in the prosperous era during 1922-29 to the same extent

as did general industry, nor have the railroads shown any real tendency to recover from the depression lows in proportion to the improvement shown by industry throughout the country.

DIVERGENT TRENDS

In addition to the tremendous growth of competition since 1920, a great variety of trends in industry and commerce beyond the control of the railroads have tended to deprive the railroads of the traffic which was formerly theirs. Taken as a whole these divergent trends have seriously affected railroad revenue tonnage. The single trend in industry of particular detriment to the railroads was the tendency of many industries to locate in closer proximity to raw materials and markets. This relocation of industry materially reduced freight bills; and the more efficient use of industrial fuels and raw materials has had a similar effect. In like manner, the loss of export markets for American agricultural products, especially cotton and wheat has been a severe blow.[1] The oil and gasoline pipe lines have permanently taken away a great deal of the traffic which the railroads would otherwise have enjoyed. Another situation of singular moment and discouraging implication is the decreasing importance of anthracite as a fuel. The demand for anthracite has been rapidly declining during the past decade. The industry has lost markets because bitter strikes have tied up production in winter months, and because competitive fuels, principally gas and oil, have made determined bids for the limited house-heating market which the anthra-

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[1]Poor's Industry & Investment Survey - Railroads - page 4.

cite producers once regarded as their own private domain. The decline in anthracite traffic is of serious consequence, for Class 1 roads receive approximately $103,000,000 in revenues from this traffic.

Railroad Freight Traffic

Freight traffic has always been the mainstay of the income of the American railroads taken as a whole. Notwithstanding the inroads made by competitors, it is to be noted that the railroads still command about 70 per cent of the country's freight traffic. The importance of this traffic to the railroads can best be understood by a study of the following table.

BREAK-DOWN OF RAILWAY OPERATING
REVENUES, 1936
(class 1 railroads)

	Revenue (thous.)	% of Total Oper. Rev.
Total Operating Revenues	$4,052,734	100.00
Freight	3,404,917	84.02
Passenger	411,842	10.16
Express	60,187	1.48
Mail	95,575	2.36
All Other	80,203	1.98

Source: Interstate Commerce Commission.

As can readily be seen by the table on the preceding page, freight revenues are the life blood of the railroads; and revenues from passenger traffic are of comparatively slight importance.

In order to exist the railroads must preserve their freight traffic. It appears on the surface that the railroad managements did not recognize in the motor truck a serious competitor, and for years they did nothing to protect themselves against the inroads made by trucks. It is interesting to compare the record of the tonnage of freight carried by the railroads and the income they derive therefrom with the statistics of the competitors of the railroads. It is only too evident that the railroads have lagged behind.

Realizing that something must be done to hold its remaining freight traffic the railroads have established a motor truck service in store-door pick-up and delivery of freight which has proved successful in regaining some lost traffic. However, the new service is very expensive and in some instances the cost actually exceeds the resultant freight revenue. More important is the railroad's supplementary expansion into highway trucking. While this move may be considered an admission of declining railroad fortunes, it, nevertheless, is a constructive step.

There is no chance that motor trucks can take away from the railroads their heavier traffic, for instance coal. Coal is of primary importance to a majority of railroads

and ordinarily constitutes 50 per cent of all railroad tonnage. The railroads will continue to carry practically all the stone, ore, gravel, cement, heavy steel, and other such items which they are equipped to handle far more efficiently than motor trucks. However, heavy industry materials represent the least profitable types of traffic and for that reason generally rate as a supplementary rather than a primary source of earnings.

RAILROAD PASSENGER TRAFFIC

From an operating standpoint, Class 1 railroads secured profits from their freight traffic throughout the depression (based on statistics compiled by the I.C.C.). However, income from passenger traffic has declined steadily since 1929 and in 1930 the first year of the depression the passenger divisions of the railroads were operating at a deficit and by 1935 made a record deficit of $161,407,000. This may be ascribed principally to keen competition from the privately owned automobile which according to Coordinator Eastman, carried approximately 85 per cent of the nation's passengers in 1934 and accounted for 90 per cent of the transportation dollar. It is apparent that there is little that the rails can do to meet the automobile's superior flexibility.

A glance at the following table clearly shows the tremendous inroads that the automobile has made in commanding the movement of passengers.

PASSENGER TRAFFIC 1934

	Number of Passengers (thous.)	% of total
Airplane	461	-
Inter-City Bus	378,200	6.7
Railroad	450,000	8.3
Private Auto	4,600,000	85.0

Source: Compiled from data supplied by Joseph B. Eastman and ICC reports.

It is very evident that the automobile has practically a complete monopoly on the passenger traffic in the United States. That the automobile has seriously impaired the railroads income from passenger traffic can best be illustrated by referring to the table printed below.

PASSENGER REVENUES
(000 omitted)

1925 - 1,426,940

1926 - 1,419,990

1927 - 1,345,580

1928 - 1,275,500

1929 - 1,300,110

PASSENGER REVENUES
(000 omitted)
continued

1930 -	1,066,880
1931 -	828,590
1932 -	594,840
1933 -	519,750
1934	546,470
1935 -	557,560
1936 -	627,690

Source: Interstate Commerce Commission reports.

Railroad management has been extremely negligent in meeting the competition of automobiles and has fought fare reductions almost without exception. The Southern railroads were first to try lower passenger rates in an endeavor to cope with the problem of declining passenger traffic, and considerable success was achieved. However, the Eastern roads were slow to realize the benefits attached to lower fares and larger volume and it was not until forced by the ICC, in June 1936 that they followed the lead of the Southern roads and made fare reductions, which in a good many instances have proved satisfactory.

During the past few years great progress has been made in improving passenger service. The new streamline trains have caught the public fancy and although these trains can do little more than absorb regular passenger traffic on long

hauls over main lines, they represent a real advance in comfort and economy which may again direct attention to rail transportation. In order to meet competition from the private automobile, coaches have been air-conditioned and, in the more popular trains, meals are served at no more than roadside costs, while the passenger may bring along his car for the price of one more ticket. In spite of the recent innovations in passenger travel the aggregate of passenger business is still handled at a loss. However, there is evidence that progressive management policies will eventually bear fruit.

The railroads have realized that improvement of passenger trains is not enough to regain any substantial portion of their former passenger traffic and they have invested considerable money in passenger buses, thus facilitating the abandonment of unprofitable branch line mileage which in many cases is proving beneficial.

Although some improvement may be experienced and a portion of lost passenger traffic may be regained, the superior flexibility and convenience of the private car has permanently deprived the railroads of by far the larger portion of their former customers; and lower rates, streamlining, air-condidioning and de luxecars cannot hope to win them back.

RAILROAD FREIGHT RATES

One of the fundamental factors in our national economy is the structure of railroad freight rates. These rates are responsible to a large extent for the development of agricultural areas, the exploitation of mineral deposits, the location of industries and the expansion of markets. Incredible though it may seem, no individual railroad rate is based on the vital factor of cost. Railroads are obliged to carry coal, ore, grains and other raw materials at low rates, to make possible the marketing of merchandise and manufactured goods of higher value.*

This practice of charging rates having no direct relation to costs, rests upon the theory that railroads constitute a transportation monopoly, which any investigation can prove to be untrue. The result is that even a small amount of competition, taking as it has, the most profitable traffic, upsets the whole earnings structure of railroads. The problem is one of tremendous magnitude and seems to defy solution; for a revision in rate structure in line with costs would lead to a disruption in general industry.

As a result of competitors capturing a large portion of the railroads most profitable freight, it is natural that

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*Bogen's "Analysis Of Railroad Securities" Page 58.

the railroads should have become increasingly dependent upon heavy industry traffic in which they enjoy competitive advantages. Realizing that the rate structure of railroads does not provide a suitable income the ICC has increased rates on a number of the heavy industry materials carried chiefly by railroads. This increased rate is a step in the right direction and may prove of considerable help, but hardly likely to prove a permanent cure. (For a discussion of ICC rate increases refer to "Temporary Favorable Factors" page 26)

LABOR PROBLEMS

A brief study of the following table reveals the vital importance of labor costs to the railroad industry. In recent years salaries have averaged 45 per cent of gross revenue or more than 60 per cent of total operating expenses.

THE RAILROAD DOLLAR
(expressed in cents per dollar of gross revenue)

	1933	1934	1935	1936
Total operating revenues	100.0	100.0	100.0	100.0
Salaries & wages*	43.2	44.1	45.0	42.9
Fuel (locomotive)	5.1	5.8	5.9	5.9
Mat. supplies & misc.	15.4	15.9	16.2	16.4
Injuries, ins., pensions	2.5	3.0	2.3	2.3
Depreciation & retire.	6.5	5.9	5.7	4.8
Taxes	8.1	7.3	6.9	7.9
Hire of equip. & joint facility net rental	3.9	3.9	3.5	3.3
Total expenses & taxes	84.7	85.9	85.5	83.5
Net Railway Oper. Income	15.3	14.1	14.5	16.5

*Does not include payroll chargeable to capital account.

Source: Association of American Railroads.

Few industries are so thoroughly unionized or have been subject to collective employee bargaining as the railroads. Fortunately labor relations are generally favorable. Management and labor have been able to arbitrate their differ-

ences and for the last twenty-one years no widespread strike has threatened.

During recent years, however, there has been a good deal of labor bickering. Congress passed a Railroad Retirement Act which was declared unconstitutional by the United States Supreme Court only to be followed by similar substitute legislation in separate tax and pension acts which, in turn, is being contested in the Courts. Early in 1937, a new bill was introduced into Congress, the result of railroad-labor and management agreement. The bill requires a 2½ per cent of payroll contribution by corporation and worker alike, the rate gradually increasing to 3½ per cent by 1949. This legislation, if passed, would not offset the increased costs for unemployment insurance under the Social Security Act or similar state legislation, and therefore, may be considered an additional burden which must be shouldered by the railroads.

In 1932, railroad labor accepted a 20 percent wage cut which was returned piecemeal, the last of the decrease was restored in April 1935. In March, 1937, rail labor demanded a twenty per cent wage advance. It is estimated that this would increase railroad operating costs by $400,000,000. However, following arbitration, non-operating employees received, effective August 1, 1937, a 5 cents per hour raise while the operating employees received, effective October 1, 1937, a 5½ cents per hour raise. This settlement approx-

imated 8.8 per cent and 6.6 per cent respectively.* At the present time a powerful railroad lobby is backing such unfavorable legislation as the six hour day without reduction in daily wages, limitation of train length and full crews whether or not necessary. While it is almost certain that this legislation will not be passed it, nevertheless serves as an illustration of the desires of the powerful railroad labor unions. With the power of organized labor greatly on the increase in America it is very likely that a large portion of labor's demands will be favorably recognized by the United States Government. As was pointed out before, the percentage of operating costs which are absorbed by labor is very high and any increase is liable to add an unbearable load to the railroads already weakened financial position.

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*Poor's Industry & Investment Survey - Railroads - Page 6

FINANCIAL PROBLEMS

There is no denying that railroad capitalization is excessive. The total capitalization of Class 1 roads amounts to $19,740,000,000 and is divided into 58.4 per cent debt, 9.4 per cent preferred and 32 per cent common stock. At first glance this capitalization may not appear excessive in relation to the $26,000,000,000 invested in road, equipment and other fixed assets. The real criterion, however, is earning power which does not support this capitalization. In 1936 more than 38 per cent of the railroad mileage in the United States operated at a deficit and the return on invested assets in the same year was only 2.58 per cent compared with 1.25 per cent at the low of the depression in 1932 and an eight year average of 2.44 per cent. Even in the boom year 1929 the return was only 4.84 per cent.*

Although the major portion of the total railroad mileage constructed has been financed through the sale of fixed obligations, adequate provision was never made by the railroads for obsolescence of their property and investments, or for amortization of debt prior to its maturity. The belief that railroads would indefinitely be able to refund debt as it fell due was based upon the belief that the position of the railroads, as the nation's transportation industry, was

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* Interstate Commerce Commission reports.

impregnable. The Interstate Commerce Commission in 1930 recognized the dangers of this financial policy and ordered the railroads to set up depreciation against their fixed investments. This order was withdrawn when the depression became acute. However, it is now being enforced where earnings are of sufficient size to stand the charge. It is significant to note that the ICC has come to realize that the position of the railroads is not too secure and it is now assuming a more concilliatory attitude in regards to rate increases.

The current financial position of the railroads is most disconcerting. As a result of restricted earning power and complete stagnation of public financing during the depression, refunding of maturing debt was impossible for many roads. Thus temporary financing measures were of necessity resorted to; and the railroads borrowed heavily from the Reconstruction Finance Corp., the Public Works Administration, the banks and their self-created Railroad Credit Corp. In this manner many companies escaped receivership during the period of acute financial distress, but added heavily to their short term debt. The total RFC loans over-hanging the railroads as of November 1, 1937 amounted to $356,000,000, not to mention $259,365,000 funded debt due in 1938 and $310,000,000 in 1939. Although the credit standing of the railroads has improved during the past year, improvement has not been commensurate with the gains made by general business, nor sufficient to enable a

large number of railroads to stand by themselves. Unless some aid is forth-coming a number of the border line railroads will be unable to meet their near-term obligations. Realizing this fact the Government has decided to continue RFC loans and to extend the maturing loans if necessary. This help is essential to the railroads to avoid bankruptcy but it in no way improves their long-term financial position, in fact, it adds another burden to the roads' already insuportable capitalization and while it postpones the day of reckoning, it makes it all the more inevitable.

REORGANIZATIONS

It is not realized by a good many investors that by the close of 1936 railroad companies operating 22.3 per cent of the nations' mileage had filed reorganization proceedings under section 77 of the Federal Bankruptcy Act, while an additional 6.4 per cent were in receivership. This situation is certainly serious and is only an example of what will happen to a large number of railroads in the event of another depression.

Reorganizations up to the present time have been very discouraging. The laws governing the proceedings have not as yet been declared constitutional nor is any test case likely to be advanced in the near future. The new Bankruptcy Act, even as amended has proved ineffective and all the glowing

promises that it would speed up reorganizations and effect them at tremendous savings were all unfounded, over optimistic speculations. The trouble is largely due to the involved reorganization procedure which provides for additional hearings even after the ICC has approved a plan. Furthermore, the plan is again delayed when it reaches the courts.

A study of attempted reorganizations reveals that considerable attention is being given to the common and preferred stockholders and rather than completely wipe them out as was formerly done they are now accorded a proportionate share in the reorganized company. Im most instances fixed charges are drastically cut. However, these reductions in fixed charges are generally reflected in equal increases in contingent charges, with the addition of sinking funds. This type of reorganization will not prove satisfactory. Funded debt is not being sufficiently reduced in line with values in the reorganization plans now under consideration by the Courts. If these proposed plans are eventually consummated the roads will go limping forth still burdened by their former top-heavy and insupportable capitalizations. The plans fail to rectify the chronic ailments which have forced the railroads into difficulties; they do not reduce capitalization in line with a true valuation of assets, nor in line with earning power.

TEMPORARY FAVORABLE FACTORS

Of considerable benefit to the rails was the Motor Carriers Act of 1935 which placed motor trucks and buses under federal regulation. The railroads had maintained for a number of years that a good part of the truck and bus traffic was carried at unremunerative rates and that this produced unfair and uneconomic competition. Under the Act the ICC is empowered to cause publication of trucking rates and adherence to them. At the same time, trucking companies must comply with more stringent insurance and labor provisions, bringing costs more nearly in line with those of the railroads.

In the same category, a second favorable development has been greater leniency on the part of the ICC in sanctioning competitive rail rates despite the long and short haul clause of the Interstate Commerce Act. This clause provides that railway rates to any point may not be lower than those to a less distant point on the same route. The practical effect of the clause has been to prevent the carriers from bidding on a strictly competitive rate basis for medium-long haul traffic now going to the trucking companies. The railroads hope that the Pettengill Bill will eventually be passed amending the Interstate Commerce Act on this point. They are also campaigning for legislation which will subject water carriers

to ICC regulation.

Another factor which considerably aided the rails was the temporary freight rate surcharge authorized by the Interstate Commerce Commission in March 1935. During 1936, the surcharges which were placed principally upon coal, ore, petroleum, iron, steel, automobiles etc., netted Class 1 railroads approximately $120,000,000 additional revenue without any apparent loss of traffic. The ICC extended the surcharge rates from June 30, 1936 to the close of that year, then allowed them to expire. Of course, the railroads tried to incorporate the surcharges as permanent rates but were unsuccessful. However, the ICC realized that the railroads' plight was serious and in March 1937 approved increases on miscellaneous commodities - estimated to yield $10,000,000 annually - and in June granted territorial increases upon textile products. In October of the same year the ICC in a sweeping decision again granted the railroads' request for freight rate advances. While the increased rates, in themselves, will cover only a small portion of the higher operating expenses recently experienced by the roads, the ICC has made clear that it is prepared to give consideration to further rate adjustments in order to enable the railroads to operate profitably. Actually, the increased revenues granted by the ICC to the rails covers only a small portion of the larger expenses which they face as a result of wage increases

totaling $130,000,000, and higher material and other expenses which have been estimated to cost the roads between $300,000,000 and $600,000,000 a year.* That further increases in freight rates will be granted is almost a foregone conclusion.

It should be recognized that the actual and proposed rate increases represent merely an adjustment to changed economic conditions and a word of caution concerning too bullish interpretation of them may be necessary. It is possible that higher rates, in certain instances, may impede the movement of traffic with resultant lower, rather than higher, gross from these sources. Also, the course of general business, with the consequent fluctuations in the volume of traffic will have its usual pronounced effects upon the earning power and financial condition of the railroad industry.

Railroad Operating Efficiency

Notwithstanding the restrictions imposed by an inflexible plant and by the financial handicaps made so acute by the depression, railroad physical operating efficiency, on the whole, has improved during the last few years. Although during the depression, as was to be expected, railroad efficiency declined; capital expenditures were drastically reduced, further improvements of all kinds were deferred and

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*Estimated by Poor's Publishing Co.

maintenance was neglected. However, on the basis of several indexes - fuel consumption and the number of gross ton miles per train hour - rail efficiency reached new heights in 1936. This may be attributed chiefly to the adoption of lighter weight cars and more economic fuel consumption as well as to the introduction of diesel power. Although this improved efficiency is commendable it will not do much to increase the earnings of railroads.

ABANDONMENTS

The greatest opportunity for the railroads to effect further economies lies in the abandonment of inefficient equipment and unprofitable lines as well as in the elimination of duplication of personnel and services by effecting mergers. The idea of economizing by the abandonment of inefficient equipment and unprofitable lines is all very good but the debt issued to raise funds to buy the equipment and build the lines will still be an ever present reminder of unwise expansion and will continue as a burden on the remaining miles of road. The advantages of coordination and mergers are self-evident. Thousands of miles of duplicating and competing tracks could be abandoned and economies could be effected by reducing the number of employees. But without drastic recapitalizations the fixed charges of the merged roads would remain the same. In fact, the burden per mile of road would

be increased since the funded debt of the duplicating mileage must still be serviced. It is questionable whether merged roads would be able to effect any savings as regards their labor costs for labor unions and railway managements have formed a five year agreement effective June 18, 1936, providing for compensation of employees deprived of employment as a result of railway coordinations and mergers.

It is logical to believe that the salvation of the railroads might be accomplished by wise mergers to be effected only after a drastic revision of property valuations had been made and a corresponding reduction in capitalization in line with earnings. It is obvious, however, that many difficulties stand in the way of securing unity of action and progress at best must be slow.

RAILROAD EARNING POWER NOT RESPONDING TO IMPROVED BUSINESS

It is to be expected that with any improvement in business the railroads will enjoy more traffic than they did during the depression. However, if it is kept in mind that the physical volume of railroad traffic did not increase perceptibly during the boom which culminated in 1929 and if it is realized how rapidly competitors of the railroads are developing and how much faster their business is growing than that of the railroads, it becomes apparent that the railroads cannot look forward to a long-term trend of increasing traffic. This fact is ably developed by the following table.

THE RECOVERY IN RAILROAD TRAFFIC
AND REVENUE
(Five-Year Average: 1926-1930 equals 100)

	Per Cent of 5 Year Average 1932	1936
Revenue freight car loadings	55.2	70.7
Revenue ton-miles	54.8	79.2
Revenue passenger-miles	53.4	70.5
Total operating revenues	51.8	67.2
Charges for maint. way & struct.	43.8	52.5
Total operating expenses	54.4	66.8
Operating expenses per ton-mile	97.8	82.2
Net railway operating income	29.3	59.9
Average revenue per ton-mile	97.3	90.6
Average rev. per passenger-mile	78.1	64.7

Source: Poor's Industry & Investment Survey "Railroads" page 12.

(1) This table clearly reveals that the recovery in freight traffic has failed to keep pace with the general recovery movement. To some extent this may be partially caused by the fact that the revival in heavy industry from which the railroads derive the major part of their tonnage, did not commence until late in 1935. Notwithstanding this, the figures reflect a relative decline in the use of railroad services owing to diversion of traffic to competing agencies and owing to basic economic changes that have acted to reduce the tonnage of products transported.

(2) That railroad passenger travel has shown almost a negligible recovery. This substantiates the other evidence that automobiles, buses, airplanes, etc. have usurped the dominant place once held by the railroads in the field of passenger transportation.

(3) That total operating revenues have shown even smaller comparative gains than revenue ton miles. This may be explained by the fact that the average charges per unit of service have decreased as a result of competitive pressure particularly with respect to passenger traffic, and the loss of a large portion of short-haul, high-rate tonnage to trucks.

(4) That total operating expenses have not gained in proportion to the total gains in dollar revenue. This reflects curtailed maintenance expenditures. Generally speaking, reduced maintenance work is, of necessity, but a postponement of expense that must eventually be incurred to meet

efficiently the demands for handling traffic.

(5) That, although net operating income has shown a substantial recovery it is still farther below the pre-depression level than any other item shown in the table with the exception of maintenance. It is well to remember that the showing of net income has been considerably helped by the inadequate maintenance charges as well as the similarly small increase in total operating expenses.

CONCLUSIONS

The railroad industry, both as regards actual physical volume of traffic and as regards income received, no longer seems to be growing, and besides it is faced with newer types of competition which threaten to make further large inroads into railroad traffic and revenues. Despite the spectacular industrial recovery experienced by this country over the past four years, the railroad industry has failed to show anything like comparable improvement.

Over the past years the railroads have failed to handle their property accounts conservatively, with the result that they are still maintaining much inefficient equipment and yet they have not retired or even reduced obligations which were issued in order to pay for the now obsolete and inefficient assets. The industry has predicated its financing upon its

long-term stability which no longer seems to be assured. It has willingly or unwillingly followed the principle that improvements and extensions should be financed by new capital issues and has done practically nothing to reduce its obligations. In other words, the railroad industry in this country is now faced with financial difficulties which are inheritances of past mistakes and which unfortunately are being encountered at the very time when the railroad business itself is being threatened by competition from other methods of transportation.

Over the long-term the railroads face three fundamental obstacles which will effectively prevent the regaining of their former earning power. First in importance is the inevitable and irresistible drift of the more profitable freight traffic to other modes of transportation, particularly motor trucks, pipe lines and water carriers. The second obstacle in importance is the competition from the private automobile which has resulted in unprofitable passenger service operations since 1929. And thirdly - the reduction in the exporting of wheat and cotton, a factor which has been magnified in the past few years by droughts and by Administration policies artificially boosting commodity prices.

There are a number of near-term problems which are currently handicapping the railroads such as the Revenue Act of 1936, imposing a 7 per cent to 27 per cent tax upon un-

distributed earnings. For the well situated roads it will penalize their refunding of debt as new issues must contain sinking fund provisions and the tax must be paid on the sinking fund monies. As for the weaker roads, many of them stand in dire need of rehabilitation. If this were to be accomplished by appropriating surplus earnings the latter would be severely penalized. Although it is very probable that this tax will either be repealed or modified, it, nevertheless, is now in operation.

Another problem is overcapitalization, largely funded debt with its crushing burden of fixed charges which to a large extent has denied the railroads any flexibility in their rate structures.

The railroads once enjoyed a monopoly on the nation's transportation business, they participated in the growth of the country and their securities were attractive investments. At the present time, this situation no longer exists, as competing agencies have taken the more profitable and less variable traffic. Not only are the railroads being oppressed by debt and handicapped by inadequate current financial resources, inflexible plant and burdensome legislation, they are dependent to an ever increasing degree upon heavy industry traffic which rapidly decreases during periods of sustained business depression.

FUTURE OF AMERICAN RAILROADS

The weakness of the railroads will not be climaxed by any large scale failures during the next few years. It is apparent that the Federal Government will continue a policy of supporting border line railroads for some time to come. But as time passes the chronic ailments of the railroads will so undermine their financial structures and economic position that during the next depression, unless some unforseen beneficial change takes place, or government ownership, 75 to 80 per cent of the railroad mileage in this country will be forced into receivership, and under compulsion their assets will be revalued and their capitalizations reduced. This major operation on railroad capitalizations is inevitable - no mergers, no rate changes, no compromises with labor, no reduced taxes or RFC loans can do more than postpone the inevitable day when railroad capitalizations must be reduced to a supportable size.

INVESTMENT STATUS

In reviewing the securities of American railroads it is very difficult to find more than a handful which seem eligible for inclusion in that limited class of safe investments which investors may feel safe in owning on a long-

term basis. However, a few American railroads have been managed far better than the average and the securities of these few may satisfy the requirements of a good investment status. However, the investor must be certain that the roads in question will be able to maintain their growth and position in American economy and will not be pulled under by the failures of surrounding roads. There are a few bituminous carrying roads which on the whole cannot be subjected to the criticism which is generally applied to the whole industry. However, the investor must bear in mind that the shifts in the use of the various fuels and the greater use of electric power may at some time or other in the future make serious inroads in the traffic of these bituminous carriers. There are a few roads which are still successful both in an operating and financial capacity in the West. Here again it is advisable to study carefully the outlook for American agriculture and especially of the future development of particular regions. There are a number of railroads dependent upon one particular commodity for the difference between profit or loss. Thus, some of the Granger roads may be seriously affected by a curtailment in wheat production, or a falling off in our exports of wheat, or perhaps by the use of new routes for shipping wheat abroad.

As can be understood readily, the outlook for traffic

varies widely in the various regions and as to individual commodities. Each region served presents a widely different set of conditions and almost every road in a given region has its peculiar problems. For example - New England's railroads are essentially terminal properties with considerable branch line mileage exposed to intensive highway competition. Moreover, some of New England's largest industries have been permanently crippled by economic pressure and operating handicaps. Railroads in the South are faced with the problem of declining exports of cotton due to low-cost foreign production. In fact, each railroad has its own particular problems which must be carefully analyzed to determine the status of its securities.

PART II

COMPANY ANALYSIS

ATCHISON, TOPEKA & SANTA FE RY.

Chartered in Kansas more than three quarters of a century ago, the Atchison, Topeka & Santa Fe has become one of the most important and prosperous railroads of the United States. The road's 13,227 miles of lines constitute the nation's most extensive steam carrier system. The lines stretch from Chicago westward through the Kansas City Gateway to San Francisco and Los Angeles, and southward to the Gulf, at Galveston. The road dominates much of the richest Central Western agricultural territory with a veritable network of lines in Kansas. The main line follows the southern transcontinental route along the old Santa Fe Trail and is double tracked practically all the way from Chicago to Los Angeles.

Capitalization

With funded debt outstanding at only $23,249 per mile of road, Atchison is more conservatively capitalized than is the industry as a whole or than other roads in the same territory. The road's bonded indebtedness of $310,000,000 at the 1936 year end comprised only 45 per cent of total capital; when viewed in the light of the road's demonstrated earning power this is quite favorable. The road is one of the distinct few with funded debt amounting to less than

half of total capitalization. There is also outstanding $124,172,800 in 5% non-cumulative preferred stock and 2,427-060 shares of common with a par value of $100 per share. The sound capital structure contributes to the Atchison's ability to weather economic storms.

Traffic

Except for concentration in agricultural and manufactured products, Atchison's traffic is well diversified. In the 1920's, petroleum and its products became important revenue producers, and while the bonanza period of this development has probably passed, such traffic supplied 13.87% of 1936 freight revenues - outranking all other single commodities.

Ratio of Freight Commodities to Total Operating Revenue

	Products of Agri.	Animals & Prods.	Products of Mines	Products of Forest	Mfrs. & Mis.
1932	26.77	5.69	4.74	1.18	21.89
1933	21.98	6.12	5.29	1.53	25.92
1934	26.48	7.85	6.69	2.26	33.84
1935	25.07	5.71	6.26	2.80	36.71
1936	23.09	4.64	6.28	3.17	39.71

Mundy's - Earning Power of Railroads - Page 203

As can be seen by referring to the above table Mfrs. & Misc. is the largest item closely followed by Products of

Agriculture. Atchison originates the unusual proportion of about 80 per cent of its own freight which, coupled with the fact that it serves basic and diverse activities lends stability to traffic volume.

Atchison is somewhat less dependent upon passenger traffic than the average Class 1 road and its experience in this division is less disastrous than the average. In 1936 revenue from passenger operations was only 9.93% of total operating revenue.

Earnings

The Atchison has established itself as one of the most dependable earners in the railroad industry. In the 20's the road reaped rich rewards and common stock earnings mounted swiftly, reaching a peak of $22.69 a share in 1929 and covering fixed charges by the wide margin of 5.36 times.

The excellent earnings record of the Atchison can best be illustrated by the following table.

Year	Avail. for Fixed Chgs.	*Fixed Charges	Times Earned
1921	$51,879,660	$12,548,006	4.13
1922	46,533,530	12,151,159	3.83
1923	53,707,014	11,619,213	4.62
1924	53,771,294	11,619,488	4.63
1925	57,710,554	11,552,620	5.00
1926	72,120,595	11,489,100	6.28
1927	60,899,839	11,145,722	5.46
1928	61,394,253	11,463,821	5.36

Year	Avail. for Fixed Chgs.	*Fixed Charges	Times Earned
1929	$74,185,197	$13,148,393	5.64
1930	50,382,552	13,033,753	3.87
1931	36,248,291	13,146,600	2.76
1932	20,672,203	13,127,196	1.57
1933	16,738,821	13,040,150	1.28
1934	19,972,606	12,971,292	1.54
1935	22,482,340	12,928,025	1.74
1936	23,005,966	13,007,840	1.77

*Including interest on adjustment bonds.

The depression record of the Atchison is far better than that for the industry as a whole in respect to support of capitalization. Fixed charges were earned in every year, largely due to a conservative capitalization, for gross revenues of the system fell even more sharply between 1929 and the low point in 1933 than did those for the industry as a whole. The decline was 55.2% versus 50.7%. However, fixed charges at the start of the depression - 1929 - required only 5% of gross revenues as compared with 11.4% for the industry as a whole. By 1933 fixed charges required 11% of gross revenues while those of the industry as a whole required 22 %.

During the depression, the road's earnings declined precipitously, and from its own operations it failed to cover preferred dividend requirements in 1932 through 1936. Non-operating income, however, was sufficient to show such requirements covered in all years except 1933, in which year $4.80 a share was declared. Common stock dividends have been paid in all years except 1933, but the rate has been

reduced from $10 to $2.

In the three years 1934-36 investments in unconsolidated affiliates have served to offset fluctuating railroad earnings and contributed approximately 40% of the parent company's net income. The more important of these affiliates are oil and trucking firms and their earnings will no doubt increase during the next few years, however, their dividends to Atchison probably will be reduced.

While there have been many contributory causes the main reason for the collapse in operating earnings during the depression was the approximate 50% decline in freight tonnage from 1929 levels. The failure to record any substantial recovery until 1937 may be ascribed to crop failures or unsettled markets for agricultural products affecting both outbound and inbound traffic.

Near Term Outlook

Although the Atchison may be temporarily affected by the adverse business conditions throughout the country and 1938 earnings may not exceed those of 1937 or 1936, earnings should, nevertheless, be sufficient to cover fixed charges and to show moderate earnings on the common. The road's ability to weather the depression and to maintain an excellent financial condition is indicative of its strength.

Current finances may be considered exemplary. On Sept-

ember 30, 1937, the Company's report to the ICC revealed that current assets, including cash of $20,847,000, amounted to $59,627,000 and were more than two and one-half times the current liabilities of $22,144,000. As there are no maturities of any importance before 1940 when $5,529,000 San Francisco & San Joaquin Valley Ry. 1st 5s, mature, the road's near-term outlook is very satisfactory.

Longer Term Outlook

The Atchison originates the unusual proportion of about 80 per cent of its own freight which coupled with the fact that it serves basic and diverse activities lends stability to traffic volume in spite of the uncertainities of crop yields. The road was a large earner prior to the depression and the conditions of its territory have not changed to alter the company's economic position to any great extent and with due consideration being given to increased costs and increased rates, earnings of the Atchison should improve considerably over those of the present although former earning power may never be regained.

Although expenditures for maintenance were sharply cut during the depression, depreciation charges were virtually unchanged, exceeding $11,000,000 in each year. Hence, in the aggregate, Atchison's maintenance expenditures (including depreciation) declined less than those of the

Class 1 roads as a whole.

The Company's equipment is somewhat below the average age and is numerically adequate and as serviceable as that of most roads. Atchison has installed stream-lined passenger equipment on its Chicago to Los Angeles run, and has air-conditioned its leading trains. It is also experimenting with high-powered, diesel-electric engines, and has speeded up its passenger and freight train schedules to meet competition. All things considered the Atchison's strategic position, moderate capitalization, strong finances, and capable management place it in a very favorable position and the road should capitalize upon any growth the Southwestern territory may experience.

Investment Status

The Atchison Topeka & Santa Fe has for a good many years been one of the strongest roads in the country. Its ability to cover fixed charges throughout the depression indicate its financial stability. The road's bonds occupy an enviable position among high-grate railroad securities and could profitably be included in conservative portfolios.

Poor's Ratings		Price Range 1937 High	Low
A**	Atchison Topeka & Santa Fe Lst 4s 1958	114	110
A**	Atchison Topeka & Santa Fe 1st 4s 1965	107	103
A**	Atchison Topeka & Santa Fe Gen. 4s 1995	116	107
A**	Atchison Topeka & Santa Fe Adj. 4s 1995	112	100

Poor's Ratings		Price Range 1937 High	Low
A*	Atchison Topeka & Santa Fe Conv. Deb. 4s 1955	110	105
A*	Atchison Topeka & Santa Fe Conv. Deb. 4½ 1948	111	105
B**	Atchison Topeka & Santa Fe 5% Preferred	107	91
B	Atchison Topeka & Santa Fe Common	88	59

The first mortgage bonds as well as the General and Adjustment 4s are suitable for accounts requiring the highest degree of safety. The convertible debentures are suitable for accounts demanding safety of principal but able to accept the risk of market swings typical of convertible issues. The Preferred stock is a medium grade investment suitable for accounts requiring a large yield and able to assume the risks involved in medium grade securities. The Common stock is a dividend paying speculation and is subject to wide market fluctuations.

ATLANTIC COAST LINE

The Atlantic Coast Line extends from a number of terminal points in southern Florida north along the Atlantic Seaboard to Norfolk and Richmond, Virginia, where connections are made affording outlets to Washington and Baltimore. Connections are made with the Louisville and Nashville at Montgomery and Birmingham, Alabama, and in northern Florida affording outlets to the territory served by that road. The lines of the Louisville and Nashville extend southwest to Mobile and New Orleans and north to Mississippi and Ohio River crossings. A connection at New Albany, Indiana, affords an entrance to the Chicago area. (For an analysis of the Louisville & Nashville see page 109.)

Capitalization

The road's capital structure is divided into 63.6% funded debt and 36.4% stock of which only 0.1% is preferred. While on the surface the funded debt of $153,489,000 appears high, it is actually very low on a per mile basis - only $29,900. Moreover, if the equity in Louisville & Nashville represented by a 51% controlling stock interest, is set off against funded debt the effect is to reduce it to very conservative proportions. The proportion of total capital-

ization comprised of debt is sufficiently large to afford a strong degree of leverage for the common shares. Taken as a whole the capitalization approaches the danger point as can be seen by the fact that the average percentage earned on total capitalization for the past six years was only 2.17%. This is not a satisfactory condition.

Traffic

The road is essentially a carrier of consumer goods. Normally about 30% of revenues is received from hauling agricultural products. Oranges and grapefruit are the most important items in this category accounting for about 12% to 18% depending upon the size of the crops. Products of mines ordinarily account for about 15% of total revenues and manufactures and miscellaneous approximately 25%.

The most important sources of revenue and their ratio to total operating revenue are as follows:

Year	Pass.	Fruit & Vegetables	Refined Pete. Oils	Bitum. Coal
1932	12.40%	26.00%	8.13%	2.01%
1933	11.14	26.09	7.93	2.30
1934	12.74	20.04	8.42	2.41
1935	14.24	16.51	6.78	2.62
1936	15.51	16.49	4.62	2.87

Source: Mundy's "Earning Power of Railroads" Page214

As can readily be seen passenger traffic has always been important to the Atlantic Coast Line, being a major

factor in the road's prosperity during the Florida boom days. Although earnings from this source have suffered acutely from automobile competition, and although basic fares were reduced to $1\frac{1}{2}$ cents per mile in December 1933, passenger business supplied more than 15% of total revenues in 1936. Although return to the 2 cents per mile rate has been authorized by the ICC there is little prospect that passenger operations will contribute much to net earnings.

Less-than-car-load traffic is still somewhat heavier than for the average road, making the Atlantic Coast Line vulnerable to highway competition. Although consumers' goods traffic is of chief importance to the Atlantic Coast Line, the Company owns 51% (596,700 shares) of the Louisville & Nashville, which is essentially a heavy industry carrier, much dependent upon the movement of bituminous coal and iron an steel products, and , thus, Atlantic Coast Line has a stake in mining and industrial production.

Earnings

The collapse in the Atlantic Coast's earnings during the depression was one of the major disappointments of the railroad investment market. In the twenties earnings were substantial and fixed charges were covered more than twice in every year. A close examination of the causes of the collapse

in earnings in 1932 reveals the fact that the reduction in Louisville & Nashville's dividend from $7 a share in 1929 and 1930 to $6 in 1931, $2 in 1932 and to nothing in 1933 had a tremendous influence on Coast Line's final result. After 1932, the road lost a large portion of its citrous fruit traffic to trucks and ocean lines while passenger operations became less profitable.

The following table clearly shows the splendid earnings record throughout the twenties and the spectacular collapse in the first few years of the depression.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$9,147,191	$7,356,622	1.24
1922	18,930,481	7,326,407	2.58
1923	20,130,969	7,333,896	2.75
1924	20,538,547	7,262,703	2.83
1925	25,764,943	7,281,801	3.54
1926	23,936,518	7,416,644	3.23
1927	17,265,657	7,409,748	2.33
1928	15,909,193	7,465,590	2.13
1929	19,256,490	7,334,983	2.63
1930	13,553,749	7,299,157	1.86
1931	9,170,205	7,149,347	1.28
1932	354,763	7,039,992	0.05
1933	4,714,070	7,099,858	0.66
1934	6,507,944	7,003,422	0.93
1935	4,059,532	6,588,987	0.62
1936	8,405,065	6,489,910	1.30

Source: Mundy's "Earning Power of Railroads" Page 218.

Although gross for the Atlantic Coast Line did not fall as rapidly as did that of the railroad industry as a whole the depression record as regards support of capitalization

was poor. This was due in large part to a greater than average operating ratio. At the beginning of the depression, the Company's operating ratio was only slightly higher than that for the industry as a whole. However, by 1932 operating ratio was 86.6% as compared with 76.9% for the industry as a whole. This was due in part to the unusually precipitous drop in gross in 1932 compared with 1931, due to the impoverished condition of the South which could not be offset despite the management's efforts to economize. Since 1932 the Coast Line's operating ratio has been reduced at the expense, partly of maintenance. The ratio for 1936 was still high however. In this year there was virtually no increase in maintenance expenses which makes the higher figure even more significant.

The road's traffic density is extremely light with much of it representing perishable commodities which make fast service imperative and, therefore, it would be expected that maintenance charges would be correspondingly light. However, hardly in quite the degree that they were in the period 1933-37.

Recovery from the depression was fairly swift. During 1936, when all classes of freight moved in increased volume as a result of fairly satisfactory crop conditions and better levels of activity in most lines of business, Atlantic Coast Line covered its fixed charges 1.30 times. Contributing largely to the road's good showing in 1936 was an in-

crease in other income from $2,445,000 in 1935 to $4,832,-000. Most of the increase in other income resulted from more profitable operations of the controlled Louisville & Nashville, which declared dividends aggregating $6 per share on its common stock in 1936 compared with $2.50 per share during 1935. In 1937 an above average citrous fruit crop in the South coupled with a crop failure in California brought relatively good earnings for the full year although operations in the last quarter were not particularly satisfactory.

Debt has been serviced throughout the depression without difficulty. However, payments on the preferred stock were discontinued in May 1932 and no further payments were made until November 1934, when the regular dividend was declared, and since continued. Dividends on the Common were paid from 1901 to 1932 when they were discontinued. Resumption of dividends occurred in 1936 when $1 was paid. The dividend was increased to $1.50 in 1937.

Near Term Outlook

Although the Atlantic Coast Line was unfavorably affected by the sudden drop in business activity in the latter part of 1937, it was able to operate profitably in every month. This is in quite a contrast to a good many roads. For the full year 1937 fixed charges were earned 1.38 times. In comparison with railroads in general the financial condition of the road was excellent on November 30, 1937. Current assets,

including cash of $13,601,823, amounted to $22,371,210 and were almost three times current liabilities of $7,654,679. Fortunately the road has only $2,005,000 in funded debt maturing within six months. This debt will be easily met. With anything like normal business in 1938 the road should cover fixed charges by a substantial margin. While the Atlantic Coast Line will no doubt receive large dividends on its holdings of Louisville & Nashville stock, it has a sound business of its own which should improve steadily along with general business activity throughout the country.

Longer Term Outlook

Although the Atlantic Coast Line is quite substantially capitalized it, nevertheless is able to operate at a satisfactory rate in anything like normal times. To be sure the road is dependent to a considerable extent upon its income from the Louisville & Nashville. However, this income is fairly secure. In normal times earnings of the Coast Line alone are sufficient to service its funded debt.

At the peak of the real estate boom in 1925 the Atlantic Coast Line showed a net income of $18,483,142 equivalent to nearly $27 a common share. Since that date the road has lost a large percentage of its citrous fruit business to trucks and ocean lines, and former earnings may never be reattained. Although the territory actually traversed does not offer

scope for extensive industrial development, the road's earning power over the years ahead should be affected favorably by economic growth of other southern sections tributary to the Atlantic Coast Line as a whole.

In view of the fact that the Atlantic Coast Line is in a position to benefit by the growing industrialization of the South and its ownership of the Louisville & Nashville is becoming increasingly more valuable, it appears likely that the road has prospects for long-term growth and barring unforseen economic changes should experience favorable earnings over the years ahead.

Investment Status

The sharp drop in earnings experienced by the Atlantic Coast Line during the depression caused a large number of investors to feel that the road had lost its former excellent standing and in view of this belief the Company's securities dropped to very low levels. Although earnings have shown a substantial recovery since 1932 and the road seems to have regained much of its lost ground, the Company's securities have not attained their former investment status and cannot as yet be considered prime investments.

Poor's Ratings		Price Range 1937 High	Low
A	Atlantic Coast Line 1st 4s 1952	106	85
B**	Atlantic Coast Line (L&V) 4s 1952	100	74
B**	Atlantic Coast Line Unified 4½s 1964	100	74

Poor's Ratings		Price Range 1937 High	Low
B**	Atlantic Coast Line Notes 5s 1945	106	86
B	Atlantic Coast Line Common Stock	55	18

The variations in market price during 1937 are too wide to warrant the inclusion of any of the bonds in conservative accounts. However, since the future of this road appears quite favorable the bonds are suitable for those accounts willing to assume the risk involved in purchasing bonds below the top grade. As a speculation the bonds are quite attractive. The Common stock may be considered a fairly good railroad speculation.

BALTIMORE & OHIO

The Baltimore & Ohio is the third largest of the Eastern Trunk Lines and operates more than 6,396 miles of track mainly in Pennsylvania, West Virginia, Maryland, Ohio, Indiana and Illinois. The lines extend westward from the Atlantic Seacoast at Baltimore through the coal fields and industrial districts of West Virginia and Pennsylvania, through Chicago and St. Louis to the western terminus in Kansas City. The road reaches such important industrial centers as Rochester, Buffalo, Pittsburgh, Cleveland, Toledo, Cincinnati and Louisville. Entrance to New York is secured through the controlled Central Railroad of New Jersey.

Capitalization

While the B&O's proportion of debt is not so high as to constitute an immediate threat to corporate stability, it is not far removed from the upper reasonable limit. At the 1936 year-end funded debt of $620,477,652, excluding RFC and other emergency loans, accounted for 66.32% of total capitalization and amounted to $110,000 per mile of road. $58,863,162 of preferred stock contributing 4.29% was followed by common stock in the amount of $256,295,348 making the balance of 27.39%. If the short-term emergency loans had been included debt would have accounted for 68.24 per cent of the

capitalization total. Including these loans the funded debt of the B&O assumes serious proportions.

As a consequence of the heavy capitalization fixed charges absorb a large proportion of revenues. Including $1,115,259 lease rentals, the Baltimore & Ohio's fixed charges amounted to $32,893,024 which was equivalent to 22.25 per cent of the $147,816,918 gross revenue total. This was a considerably larger percentage than was paid by the other Eastern Trunk lines.

Of course the heavy funded debt skyrockets the common share earnings when earnings exceed fixed charge requirements by any substantial margin. Thus, in 1928 when charges were covered just under two times, earnings ran to $17.20 a share. However, the reverse is equally true and in 1934 when fixed charges were covered only 0.88 times a deficit of $2.41 was shown on the common. The foregoing serves to show not only why the Baltimore & Ohio bonds are ranked below the strictly prime grade but also why the stock attracts a speculative following.

Traffic

The Baltimore & Ohio has been called a carrier of the "Prince and Pauper" type because of the wide fluctuations in earning power tracing to a large dependence on the coal, iron and steel industries.

As the following table indicates the largest percentage of the line's revenues is derived from manufactures and miscellaneous with products of mines a close second.

Ratio of Freight Commodity Classes to Total Operating Rev.

	Products of Agri.	Animals & Prods.	Products of Mines	Products of Forest	Mfrs. & Mis.
1932	6.88%	6.00%	34.66%	2.54%	30.48%
1933	6.47	5.68	36.88	2.37	31.90
1934	6.18	5.81	36.46	2.51	33.29
1935	5.63	4.21	35.61	2.93	36.33
1936	5.90	3.57	36.81	3.15	37.03

Source: Mundy's "Earning Power of Railroads" Page 225.

The most important commodity carried is bituminous coal, which makes up approximately 45% of total tonnage and almost 30% of total freight revenues. The bituminous traffic of the road has varied almost directly with the country's total production. It is significant to note that the inroads of competitive fuels and more efficient fuel utilization militate against an increasing consumption of bituminous coal and the long-term trend of B&O's bituminous traffic is downward.

The Miscellaneous and Manufacturing traffic is to a large extent composed of iron and steel products which produce in good times more than 10 per cent of the Company's freight revenues. Activity in steel benefits B&O in two ways: the road carries steel, and steel activity demands the ship-

ment of coal. Therefore, it is readily seen that earnings of the road are heavily dependent upon steel activity. The relationship between steel activity and the Baltimore & Ohio's earnings is shown in the following table.

Year	Total Operating Revenue	Finished Steel Tonnage
1929	$245,000,000	41.1
1930	207,000,000	29.5
1931	173,000,000	19.2
1932	126,000,000	10.5
1933	132,000,000	16.7
1934	136,000,000	19.0
1935	142,000,000	24.0
1936	169,000,000	33.8

In view of the Baltimore & Ohio's dependence upon capital goods industries a profitable traffic level depends to a large degree on sustained activity in steel production and other heavy industries. Passenger revenues amount to only 7 per cent of the total. Freight revenues contribute about ninety per cent, and about forty per cent of freight revenues is represented by lines directly connected with the iron and steel industry. These are chiefly bituminous coal, iron ore, coke, iron and steel "fifth class" and manufactured steel products.

The significance of this dependence upon steel activity is clearly illustrated by the fact that a decline of 30 per cent to 40 per cent in the production of steel might easily bring about an almost equal decline in the allied traffic,

and even if revenues from other sources remained relatively stable such a recession in the "heavy" category would represent a decline of 15% or more in total revenues.

Earnings

As previously pointed out the prosperity of the Baltimore & Ohio is dependent upon heavy industry activity and freight rates - primarily coal rates. Earnings have varied widely over the last sixteen years following closely the trend in industrial activity.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$30,542,410	$24,153,519	1.26
1922	28,341,506	23,966,132	1.18
1923	46,973,161	24,551,125	1.91
1924	42,335,981	26,016,292	1.63
1925	48,312,343	27,518,834	1.76
1926	56,539,867	28,930,108	1,95
1927	52,723,421	30,091,076	1.75
1928	56,098,698	26,997,767	2.08
1929	56,792,465	28,024,558	2.03
1930	50,579,636	29,155,865	1.74
1931	34,066,534	30,263,557	1.13
1932	27,060,988	33,395,966	0.81
1933	33,920,102	33,715,330	1.01
1934	28,787,510	32,613,262	0.88
1935	29,440,360	32,621,269	0.90
1936	37,431,999	32,893,024	1.14

Source: Mundy's "Earning Power of Railroads" Page 230.

A study of the table reveals that in normal times the Baltimore & Ohio is able to support its capitalization, but periods of slack business are quickly reflected by a drop in

earnings. As heavy industries are more seriously affected by slumps than other types of activity it is not surprising that the Baltimore & Ohio had a difficult time during the depression and it was not until heavy industrial production surged sharply upward in 1936 that the Baltimore & Ohio's earning power showed material improvement. It is safe to say that, barring an unforseen change, the earnings of the B&O will fluctuate in sympathy with the activity of heavy industries and that earnings will be satisfactory when business is booming and will be insufficient to cover fixed charges when business is much below normal.

Near Term Outlook

In view of the Baltimore & Ohio's dependence upon the capital goods industries - which have experienced one of the sharpest contractions in business history - the road has been dealt a severe blow. In place of a profit for 1937 which it was earlier estimated would be sufficient to cover fixed charges 1.01 times, the road now estimates that it will show a loss of $1,352,000. The road's problems are not, however, associated solely with the current depression. It now owes the RFC $79,842,823, probably the largest sum any carrier is owing to that Government unit.

Continued solvency of the B&O depends upon the road's ability to meet interest payments and to take care of equip-

ment trust securities maturing in 1938 as well as $50,000,-000 of secured 4½% notes and substantial Government loans maturing in 1939. The ability to pay interest and to meet the maturities depends upon a revival in business activity and upon the size of the expected rate increases. The object of the ICC in granting higher freight rates is to keep railroads, like the B&O, solvent and investors can be assured that everything possible in the way of rate increases will be done to keep railroads from bankruptcy. Moreover, it appears evident that the recovery movement has some distance to go before it reaches a cyclical peak and indications now point toward a revival of business in the middle half of 1938. That business will be better in 1939 than in 1937 is very probable and conditions will no doubt be such that the B&O's maturing loans will be extended or refunded without any serious difficulties.

Longer Term Outlook

Although the Baltimore & Ohio will no doubt remain solvent for the next few years it has generated conditions which make long continued solvency very improbable.

Before the depression the road was spending more than $80,000,000 a year on total maintenance. With the advent of the depression, such charges were cut sharply to help meet interest requirements and estimated arrears in main-

tenance now total roughly $100,000,000. (Poor's estimate) The road is dependent upon the capital goods industries and particularly the steel industry and earnings are, therefore, very vulnerable to a decline in general business activity. Company's heavy RFC loans and large near-term maturities preclude any substantial improvement over the immediate future and it is likely that the next depression will catch the B&O in a much worse condition than in 1929. The road's ability to weather another depression is open to question. Average earnings cannot support the Company's capitalization, its bituminous traffic and passenger traffic are declining, it is meeting heavy competition from trucks and its earnings are dependent upon a very variable and none too profitable traffic.

Investment Status

The Baltimore & Ohio's capitalization is dangerously out of line with earning power and it is highly improbable that the road will continue for many more years without a capital readjustment.

The securities of a company with a questionable future can have no investment merit. While there may be a decided speculative movement in the various Baltimore & Ohio issues during the next few years the longer-term position of the road is so insecure that none of its securities are suitable for conservative accounts.

Poor's Ratings		Price Range 1937 High	Low
A	Baltimore & Ohio 1st 4s 1948	109	73
A	Baltimore & Ohio 1st 5s 1948	116	78
B**	Baltimore & Ohio P.L.E.&W.V. Ref. 4s 1941	105	67
B*	Baltimore & Ohio S.W. Div. 1st 5s 1950	108	51
B*	Baltimore & Ohio T.C. Div. Lst Ref. 4s 1959	99	50
B	Baltimore & Ohio Ref. & Gen. Mtge 5s 1995	94	38
B	Baltimore & Ohio Ref. & Gen. Mtge 6s 1995	103	43
B	Baltimore & Ohio Ref. & Gen. Mtge 5s 2000	93	36
B	Baltimore & Ohio Ref. & Gen. Mtge 5s 1996	93	37
B	Baltimore & Ohio Securred Notes 4½s 1939	102	50
C**	Baltimore & Ohio Conv. 4½s 1960	82	30
C	Baltimore & Ohio Preferred	47	10
D**	Baltimore & Ohio Common	40	8

The table printed above graphically shows the drastic market movement of the Baltimore & Ohio securities over the past year. This violent market movement suggests the inherent speculative nature of the securities of this road.

BANGOR & AROOSTOCK RAILROAD

Bangor & Aroostook's approximately 600 miles of road are all located in northern Maine. The lines of the railroad extend from tidewater at Searsport north to Van Buren on the St. John River at the Canadian boundary, a distance of approximately 259 miles, the balance of the mileage is composed of branch and connecting lines and industrial spurs woven through the agricultural and lumber producing territory of northern Maine. The railroad serves the largest lumber and richest agricultural districts in New England and also serves one of the largest paper mills in the country. The chief connecting carrier is the Maine Central Railroad but there are also connections with the Canadian Pacific Railway and with the Canadian National Railways.

Capitalization

While funded debt of $16,421,000 approximates 60 per cent of total capitalization, the debt per mile is not high amounting to only $27,500 per mile of track. Outstanding capital stock consists of 38,280 shares of $100 par value 5% preferred stock and 141,792 shares of $50 par value.

common. The common stock has had the benefit of earnings even in years of depression and has profited from the leverage of a substantial prior capitalization in years of prosperity. In 1937, $3,480,000 7% preferred was replaced by $3,828,000 5% preferred each share of which is convertible to July 1, 1941 into two shares of common, upon the payment of $5 a share. Thereafter, the additional payment is increased. This refinancing saves the company $52,200 each year in preferred dividends.

Traffic

Known as the "Potato Road" the Bangor and Aroostook receives 35% to 45% of its freight tonnage and 55% to 65% of its freight revenues in normal years from potatoes. Passenger revenues, as shown by the table printed below, are only nominal and the only other important revenue producers are wood pulp, paper and fertilizer.

	Passenger	Potatoes	Paper	Products of Forest
1932	3.78%	55.40%	9.03%	5.13%
1933	3.64	59.05	8.73	3.54
1934	4.43	53.72	8.52	5.23
1935	4.15	51.34	9.36	8.31
1936	3.83	49.05	10.82	6.83

Source: Mundy's "Earning Power of Railroads" Page 240

The road is unique in being dependent so largely for

its revenues and earnings upon a single crop. During the depression, large potato crops were raised, and despite low prices, they meant large tonnage to the railroad and profits held up exceptionally well.

Earnings

Earnings were remarkably stable during the late twenties, and reached a peak of $9.27 a share in 1930. The road showed substantial earnings throughout the depression, although subnormal potato harvests in 1930 and 1935 meant a fairly sharp reduction in share profits. However, as the following tableshows, the falling off in earnings was very slight in comparison with the drastic shrinkage experienced by most roads during this period.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$1,269,323	$1,021,370	1.24
1922	1,708,644	1,032,171	1.65
1923	1,650,032	1,055.121	1.56
1924	1,782,745	1,059,995	1.68
1925	1,763,628	1,040,000	1.70
1926	1,947,241	1,032,915	1.89
1927	2,138,108	998,385	2.14
1928	1,948,397	965,320	2.02
1929	2,334,390	935,956	2.49
1930	2,426,371	868,609	2.79
1931	1,435,864	812,731	1.77
1932	1,509,442	807,949	1.87
1933	1,793,789	800,213	2.24
1934	1,730,993	783,599	2.21
1935	1,622,497	748,744	2.17
1936	1,469,922	722,671	2.03

Source: Mundy's "Earning Power of Railroads" Page 240.

The road receives a comparatively small amount of revenue from shipments of lumber, pulpwood and newsprint and is therefore, not affected seriously by adverse business conditions. The road's stability of earnings can be demonstrated by referring to the earnings for 1937, a year in which carriers of heavy industry goods recorded poor earnings in comparison with those of the previous year. For the year 1937 the Bangor & Aroostook reported a net income of $845,224 which compared with $747,251 in 1936 and amounted to in earnings per share, after dividends on the preferred, to $4.61 and $3.55 respectively. Operating revenues showed a gain of 3.3% over those of 1936 and net railway operating income an increase of 13.1%.

Dividends have been paid upon the common stock since 1903 and upon the preferred since its issue in 1917. By reason of the dividend record all of the Company's mortgage bonds have become a legal investment for savings banks in Maine, Massachusetts, New York and other states.

The property has been adequately maintained; all necessary addition and betterments, improvements and replacements, have been made, and new equipment including heavier locomotives, has been built or purchased, or otherwise provided for, with the result that the Company is prepared to meet fully all demands for transportation service.

Near Term Outlook

The Bangor & Aroostook has a long record of stable earnings in spite of its relatively heavy senior capitalization and primary dependence upon the Maine potato crop. Financial condition has been maintained comfortably at all times by an able management. On November 30, 1937 current assets, including cash of $593,603, amounted to $2,216,752 or more than three times the current liabilities of $706,-733. The road has no near-term maturities, no bank loans nor floating debt.

Although the current business recession may be reflected in small movements of lumber, woodpulp and newsprint, the main stay, the potato crop is of sizeable proportions and now awaits shipment. Only satisfactory potato prices are needed to assure creditable profits over the coming six months. With both physical and financial condition excellent, any earnings gains could be distributed to stockholders.

Longer Term Outlook

At first glance a road dependent upon a single crop for prosperity would appear to be too insecure. However, a glance at the splendid earnings record of the Bangor & Aroostook throughout the last fifteen years does not indicate any weakness, rather its dependence upon the potato

crop has enabled this road to record consistent earnings. Even though the Bangor & Aroostook cannot be expected to participate in any cyclical business recovery in proportion with the rail systems catering to the "heavy industries", fairly stable operating results and dividend payments can be expected.

Investment Status

The road's remarkable record for stability of earnings marks it as one of the few depression proof roads. It's securities have always been highly regarded by investors, and although the road has no diversity of traffic its First Mortgage bonds are prime investments.

Poor's Ratings		Price Range 1937 High	Low
A**	Bangor & Aroostook 1st 5s 1943	116	111
A**	Bangor & Aroostook 1st 5s 1943 (Pisc.)	110	106
A**	Bangor & Aroostook (Van B.) 5s 1943	110	106
A*	Bangor & Aroostook (St. John) 1st 5s 1939	109	106
A*	Bangor & Aroostook Cs. Ref. 4s 1951	108	106
A*	Bangor & Aroostook Cv. Cs. 4s 1951	108	106
A	Bangor & Aroostook 5% Conv. Preferred	110	89
B**	Bangor & Aroostook Common	45	30

The top bonds of the road the 1st 5s 1943 are suitable for the most conservative accounts. The other issues, the 5s 1939 and the 4s 1951 are high-grade bonds and are reason-

ably safe investments. The 5% convertible preferred ranks fairly high among similar issues and could be included for income in the conservative stock account. The Common stock is a good dividend paying security although, subject as are all common stocks, to large price changes.

CANADIAN PACIFIC RAILWAY CO.

The Canadian Pacific, a privately owned transcontinental line operating more than 17,200 miles of track in Canada as well as controlling some 4,000 additional miles of trackage in the United States, extends accross the entire continent. Its lines reach from Halifax and St. John on the Atlantic, and from Quebec on the Gulf of the St. Lawrence, to Vancouver on the Pacific. They reach Toronto and Detroit; through the ownership of the "Soo" they reach Minneapolis and St. Paul and extend through Minnesota and North Dakota; through the "Duluth and South Shore" they pass through the rich iron districts of northern Michigan. A net work of lines covers Manitoba and extend westward, making the railroad the chief forwarding agency in the richest wheat fields of the continent.

In addition to its railways the Canadian Pacific operates a fleet of 15 inland steamships and about 42 ocean and coastal vessels, maintaining communication between Eastern Canada and European ports and between Western Canada and Asiatic and other ports.

The Company owns a chain of fifteen hotels located throughout the Dominion. The hotels are in the main the

luxury type, located at famous resorts, including the Chateau Frontenac at Quebec, Banff Springs Hotel at Banff and the Cha eau Lake Louise at Lake Louise.

Capitalization

The make up of the capital account of the Canadian Pacific differs considerably from the customary style of American roads. The ratio of long-term indebtedness to total capitalization is about 51% with capital stock representing 49% thus resulting in a sound balance. Moreover, total capitalization is not out of proportion to normal earnings and a large part of the debt is represented by perpetual debentures, which eliminate refunding problems. Expansions and acquisitions were financed to a considerable extend by common stock which accounts for the 13,400,000 shares outstanding. While this situation improves the standing of the funded debt it contributes to sluggish market action for the common shares.

Traffic

While the diversity of the Canadian Pacific's interests helps somewhat to stabilize the earning power of the company, earnings fundamentally reflect the rate of Canadian economic activity. The controlling factor in the business rate con-

tinues to be the prosperity of the agricultural provinces, which are largely dependent upon the size of the wheat crop and the state of the world market as to price.

The following table shows the important sources of revenue, and the ratio to total operating revenue.

	Passenger	Grain and Grain Products	Lumber	Coal
1932	13.49%	23.29%	3.82%	5.74%
1933	12.50	21.17	4.04	6.57
1934	12.07	17.70	4.52	5.84
1935	11.69	16.89	4.97	5.90
1936	11.31	16.06	4.98	6.14

Table 1

Source: Mundy's "Earning Power of Railroads" Page 257.

As can readily be seen grain, and grain products constitute the largest revenue producers with passengers a fairly close second. The decline in grain revenues from 23.29% in 1932 to 16.06% in 1936 was a result of the widespread drought conditions in western Canada and in the northwestern United States in recent years.

The following statement of grain handlings of the Canadian Pacific and Soo Line indicates the severity of the adverse agricultural conditions which have prevailed since 1930. (The figures represent millions of bushels.)

Grain Handlings
(millions)

	Canadian Pacific	Soo Line
Average 1925-1930	241	46
1931	149	22
1932	185	18
1933	160	21
1934	138	13
1935	142	18
1936	143	11
Average 1931-1936	153	17

Table 2

As previous periods of drought have been followed by more favorable growing conditions and since the world's visible supply of wheat has steadily declined during the last five years and is now less than in any year since 1923 and since the average farm price per bushel of wheat was higher in 1937 than in any year since 1929, there is reason to expect that the traffic to and from the agricultural areas served by the Canadian Pacific will, in the next few years, exceed the average of the last few years. It is also to be expected that the agricultural traffic of the Soo Line will increase from the extraordinarily low level of 1936.

Again refering to table (1) it will be observed that passenger revenue has steadily declined since 1932. The cause of this may be directly placed upon the automobile, as evidenced by the fact that in 1913 the number of passengers carried on all Canadian railroads was 46,230,765. For the year 1935 this number had fallen to 20,084,185, despite the

fact that the country's population had increased by over 3,000,000.

A similar comparison in regard to freight traffic is of equal interest. For the year 1913, total tons of freight carried by all Canadian railways were 106,992,701. For the calendar year 1935 the total carried was 69,141,100. Whatever may be the combined causes that have resulted in this drastic change, the resulting effect upon railway revenues will be readily understood.

While the prosperity of the Canadian Pacific is chiefly dependent upon wheat, traffic in live stock, coke, coal and other products of mines, lumber, plupwood as well as products of manufacturers contribute a subst ntial part of gross revenues. For the most part this traffic, with the exception of products of manufacturers, is carried by the rails with a minimum of competition from trucks.

Earnings

The company's earnings record speaks for itself and for a conservative capitalization.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$44,688,939	$11,519,072	3.88
1922	46,894,046	13,348,906	3.51
1923	48,370,062	13,470,653	3.59

Year	Avail. for Fixed Chgs.	*Fixed Charges	Times Earned
1924	$46,698,494	$14,070,287	3.32
1925	51,012.151	14,438,517	3.53
1926	55,401,398	14,676,359	3.77
1927	50,792,131	15,378,867	3.30
1928	63,622,136	15,308,698	4.16
1929	57,626,764	16,149,003	3.57
1930	57,541,582	19,159,865	3.00
1931	35,884,836	22,050,364	1.63
1932	23,877,410	23,619,529	1.01
1933 -	25,645,776	24,388,615	1.05
1934 -	31,047,817	24,578,026	1.26
1935	26,992,022	24,159,938	1.12
1936	29,942,482	23,913,298	1.25

* Includes debenture stock interest and bond interest.
\- Before depreciation on Ocean and Coastal Steamships.

Source: Mundy's "Earning Power of Railroads" Page 258.

Table 3

A study of the table reveals that earnings were very satisfactory from 1921 to 1930 and with the advent of the depression they shrank rapidly. It is interesting to note however, that gross revenues of the Canadian Pacific fell less between 1929 and 1933 than did those of United States roads - 45% versus about 50%. Contributing generously to Canadian Pacific's earnings during the depression were non-railway operations. However, Canadian Pacific's recovery from the depression low point has been at a slower pace than that of many United States roads. This probably is due, in part, to the poor agricultural conditions which have persisted for the last few years and to the fact that a large

portion of income, more than half the total in 1930, was derived from mine, hotel, steamship and other outside operations which naturally experienced unusually hard going during the depression. However, throughout the depression the Company earned its fixed interest charges in each year, a very creditable achievement.

Dividends were maintained at the rate of $2.50 a share on the outstanding Ordinary stock, from 1911 to 1931 but were omitted after April, 1932. There is little prospect for prompt resumption upon the ordinary stock because the $137,257,000 preference issue effectively prevents the realization of noteworthy earnings upon the Ordinary shares when gross revenues are small.

Again referring to table (3) it will be noted that fixed charges increased from $16,149,003 in 1929 to $24,-578,026 in 1934. This substantial increase was due to extensive improvements paid for by borrowed funds and due to the inability of the Soo Line to continue its interest payments without substantial help from the Canadian Pacific.

Future earnings should benefit by the steady growth and expansion of industry throughout the Dominion. As earnings are dependent upon a wide diversity of traffic the Company's prosperity will reflect general business conditions. However, real substantial earnings cannot be expected until drought conditions in the Provinces can be over-

come.

Near Term Outlook

The Canadian Pacific weathered the depression in a very satisfactory fashion and although earnings have not shown any substantial increases since the depression this may be chiefly blamed upon the drought conditions rather than upon any inherent weakness in the railroad.

The $48,000,000 of five year notes formerly due in 1938 were paid off early in 1936 with proceeds received from the sale of bonds. Throughout the 40's substantial maturities will occur. However, there should be little difficulty met in carrying out refunding operations.

The transportation systems of Canada are experiencing a less rapid rise in costs than are domestic rails and they are facing a less drastic industrial recession. It is fairly certain, therefore, that the Canadian Pacific will have clear sailing over the near-term.

Longer Term Outlook

The Canadian Pacific is a soundly financed and ably managed railroad. Moreover, it carries on an enormous and widely diversified business and should, therefore, benefit substantially from the industrial development of Canada which

appears in long-term prospect. Although the railroad proper is principally dependent upon agricultural traffic and is affected by crop conditions which have been unfavorable in recent years, earnings as a whole have been satisfactory because of the supplementing income from other operations.

The road's chief competitor is the large Canadian National Railway System, which is under Governmental ownership. This competition from a Governmentally owned railroad could be a serious threat to the Canadian Pacific but for the spirit of cooperation observed by the Canadian Government.

Currently there is considerable agitation for a consolidation of the two systems and it seems very likely that some alignment will eventually be effected. In the event of this the funded debt of the Canadian Pacific would probably receive the guarantee of the Canadian Government. However, with or without a consolidation the Canadian Pacific is sufficiently strong to maintain its position and the longer-term outlook is quite satisfactory.

Investment Status

Although the Canadian Pacific's margin of earnings above fixed charges during the past five years were not of sufficient size to mark the road as being depression proof, they

were, nevertheless, indicative of a fairly secure position. With the long-term prospects for the development of Canada quite favorable, the road can be said to be in a progressive period, moreso than most American railroads. In view of the prospects for long-term growth the outlook for the securities of the Canadian Pacific appear satisfactory.

Poor's Ratings			Price Range 1937 High	Low
A*	Canadian Pacific	Secured Notes 4½s 1944	102	100
A	Canadian Pacific	Collateral Trust 2½s 1941	98	95
A	Canadian Pacific	Conv. Col. Trust 6s 1942	114	102
A	Canadian Pacific	Collateral Trust 4½s 1946	106	100
A	Canadian Pacific	Collateral Trust 4s 1949	103	97
A	Canadian Pacific	Conv. Col. Trust 3½s 1951	102	93
A	Canadian Pacific	Collateral Trust 5s 1954	111	98
A	Canadian Pacific	Collateral Trust 4½s 1960	106	90
B**	Canadian Pacific	4% Perpetual Deb. Stock	99	80

At the present time, based upon past record, the securities of the Canadian Pacific cannot lay claim to the highest investment status. However, the Secured Notes 4½s 1944 are suitable for most accounts. The Collateral Trust issues as well as the Convertible bonds and the Debentures are fairly high grade and could be considered as satisfactory media for investment where market stability is not essential.

The preference stock as well as the common are too speculative to warrant consideration from conservative accounts.

CHESAPEAKE AND OHIO RAILWAY CO.

Developed by Van Sweringen interests, and 45% of its Common stock held by the Chesapeake Corp., the Chesapeake & Ohio operates, largely through ownership of over 3,106 miles of lines extending from the Atlantic Seaboard at Newport News, Virginia, through the West Virginia and Kentucky coal fields into the Middle West industrial region, to the Great Lakes ports and to Chicago. Its lines also serve coal mines in southern Ohio. Among the important cities served by the Company's lines are Norfolk, Newport News and Richmond, Virginia; Washington D.C.; Charleston and Huntington, West Virginia; Cincinnati, Columbus and Toledo, Ohio; Ashland, Lexington and Louisville, Kentucky; and Chicago, Illinois.

The Van Sweringens secured control of the Chesapeake & Ohio in 1923. They soon after made it an active member of their interlocking interests, so that the road not only holds substantial stock interests either directly or through subsidiaries in the other Van Sweringen roads of which the most important are the Erie and the New York Chicago & St. Louis, but is in the position of having its own securities held by various members of the group notably Chesapeake Corp., which owns some 2,359,000 shares or 30.8% of Chesapeake & Ohio

common and 60,490 shares, or 39.5% of the preferred.

Under the Van Sweringen control the road was built into one of the finest physical plants of its kind in the country. Following the death of O.P.Van Sweringen late in 1936, control passed to a group of New York capitalists who have backed the existing operating management.

Capitalization

While funded debt of $239,602,000 comprises 54.4% of capitalization and is outstanding at $73,557 per mile of road and appears to be large when compared with the industry as a whole and with Norfolk & Western its competitor, the high density of traffic and the stable earning power somewhat lessen the unfavorable implications.

Funded debt is followed by $15,315,000 4% Preference stock which was distributed to stockholders as a special dividend in 1937, and approximately 7,657,674 shares of common with a par value of $25 which makes a total capitalization of approximately $446,359,150.

Traffic

The Chesapeake & Ohio's traffic is chiefly bituminous coal which largely originates on the company's line. This one item accounts for approximately 82% of total tonnage and

more than 75% of the total freight revenues in normal times.

The relative importance of the various freight items can be seen by referring to the following table.

Year	Pass.	Bitum. Coal	Refined Pete. Oils	Iron & Steel
1932	2.73%	73.22%	1.30%	0.93%
1933	2.41	72.94	1.07	1.21
1934	2.65	71.43	1.14	1.44
1935	2.46	70.60	1.20	1.77
1936	2.50	70.84	1.08	1.96

Source: Mundy's "Earning Power of Railroads" Page 280.

Little need be said about the Company's traffic other than - bituminous is all important.

Earnings

Chesapeake's growth of earnings up to 1929 can be attributed to a pronounced swing in bituminous production totals away from the Pennsylvania fields to the West Virginia fields, through which the Company's lines hold sway, because of lower production costs. In the period of 1920-1929 West Virginia production rose from 16% of the country's total to 26%. This swing continued even further into 1933, the proportion rising to 28%, allowing Chesapeake & Ohio to show a lesser decline in gross revenues after 1929 than was the case with

most roads. The per cent decline from 1929 to 1933 was 29.6% versus a decline of 50.7% in gross revenues for the railroad industry as a whole.

The following table shows the splendid earnings record of the Chesapeake & Ohio.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$14,103,293	$9,793,361	1.44
1922	16,800,621	10,159,011	1.65
1923	21,230,253	12,131,203	1.75
1924	23,679,526	11,457,483	2.07
1925	31,418,088	11,265,819	2.70
1926	39,324,423	10,029,621	3.92
1927	38,327,263	9,719,948	3.94
1928	38,872,543	9,955,618	3.90
1929	41,285,758	9,900,342	4.54
1930	44,800,853	10,667,913	4.20
1931	37,470,774	10,774,291	3.48
1932	34,183,151	10,655,396	3.21
1933	38,532,496	10,292,686	3.74
1934	37,905,567	9,843,164	3.85
1935	40,805,317	9,765,832	4.18
1936	54,052,874	10,262,871	5.27

Source: Mundy's "Earning Power of Railroads" Page 282.

The Company has always been able to meet fixed charges and from the date of organization to January 1, 1937 98 cash dividends amounting to approximately $252,234,000 have been paid. The present dividend is at the rate of $3.00 annually.

As can readily be seen by an analysis of the Company's traffic, earnings will vary with the amount of bituminous

coal consumed. In the past the road has been very successful in maintaining its position throughout periods of business depression, and its fine depression record has made any skimping of maintenance expenditures unnecessary. As a result the road is in excellent condition and earnings are freely handed over to the common stockholders.

Near Term Outlook

Although the present business recession has eaten measurably into the earnings of the Chesapeake & Ohio a sizeable net income is still being reported giving evidence of the road's already proven ability to weather economic storms with flying colors. Although earnings for the first part of 1938 will no doubt be below those of last year, they will, nevertheless, be sizeable.

The Chesapeake & Ohio's current financial position is considerably stronger than that of most roads. On November 30, 1937 current assets, including $38,980,234 cash, amounted to $54,272,564 and were more than twice current liabilities of $25,332,987. Near-term maturities amount to only $2,848,000 and while sufficiently large to throw a good many roads into financial difficulties, they will be met by the C&O without the slightest difficulty. The road's near-term position can be declared with positive assurance, exceptionally strong.

Longer Term Outlook

The fairly conservative capitalization of the Chesapeake & Ohio coupled with its splendid earnings record throughout the depression seem to indicate that the road's position is secure. This conclusion would most heartly be sustained by most analysts who have given the road's setup any serious consideration. The Chesapeake & Ohio has demonstrated its ability, under the worst depression influences, to maintain earnings at a level in excess of $3 a common share.

A plan has been proposed and conditionally approved by the ICC whereby the Chesapeake & Ohio would gain direct control of the Erie Railroad Co. and of the New York Chicago & St. Louis and establish a unified system. This step would facilitate the building up of one of the country's major integrated rail transportation systems. And it would provide for direct one-road handling of important coal traffic from producing fields to major consuming areas in eastern sections. Through coordination of services offered by individual roads the consolidated carrier could effect fairly large savings in operating expenses. Although the Erie is at the present time being reorganized under section 77 there is considerable belief that the Chesapeake & Ohio will acquire control of the road as soon as Erie will cut capitalization

down to a supportable size where it can operate as a profitable road. At present capitalized levels the New York Chicago & St. Louis would be a liability if assumed by the Chesapeake & Ohio. However, the astute management of the C&O will not be induced to assume any over-capitalized road and if the plan is ever consumated the C&O will see to it that the system as a whole will be soundly capitalized and a strong unit.

Whether the above plan is eventuated or not, the Chesapeake & Ohio will continue to operate profitably for a good many years to come. Its long-term earnings trend, however, will be governed by the rate which competitive fuels can make inroads upon bituminous coal. It is not likely that any sudden change in fuel habits will take place, however, it is the Chesapeake & Ohio's most vulnerable point; and there is evidence that bituminous coal is suffering a decline in use similar to that effecting anthracite, although to a lesser degree.

Investment Status

The splendid record of the Chesapeake & Ohio Railway Co. over the past twenty years entitles its securities to the highest rating accorded rail securities. Its proven record and excellent dividend payments place it amongst the foremost roads of the country. The single adverse factor, a heavy de-

pendence upon bituminous traffic is not of sufficient importance to warrant attention at this time. However, it should be kept in mind that the volume of bituminous traffic is declining and that this factor may at some later date have the power to drag the road from its present secure position.

Poor's Rating		Price Range 1937 High	Low
A**	Chesapeake & Ohio Ref. Imp. 3½s 1996	103	93
A**	Chesapeake & Ohio (Potts Cr. Br.) 4s 1946	111	106
A**	Chesapeake & Ohio (Rich & A.) 1st 4s 1989	120	108
A**	Chesapeake & Ohio 1st C 5s 1939	109	105
A*	Chesapeake & Ohio $4 Preferred	100	89
A	Chesapeake & Ohio Common	69	31

The above table clearly shows the high investment calibre of the Chesapeake & Ohio's obligations. The marked stability of the 1937 price range, a hectic year for rail bonds, is an example of investors faith in the ability of this road to weather almost any difficulty.

DELAWARE AND HUDSON CO.

On April 1, 1930 the Delaware & Hudson Co. in an attempt to segregate transportation properties from its coal properties, transferred virtually all its important railroad interests to a new company known as the Delaware & Hudson Railroad Corp. The Delaware & Hudson Co. transferred to the new corp. its operations as a common carrier, but retained, in addition to its interest in the anthracite industry, namely the Delaware & Hudson Coal Co., the operation of street, suburban and interurban railroads not operated as part of the steam system, the railroads located in the Province of Quebec and those now under lease to the New York, Ontario & Western Ry.

For the properties, the new railroad corporation paid to the Delaware & Hudson Co. $9,000,000 in cash and 515,740 shares of no par common stock. This is the only class of stock outstanding and is the full amount authorized. The Delaware & Hudson Railroad Corp. assumed the funded debt of the Delaware & Hudson Co. which amounted to $69,500,000 on December 31, 1936. This funded debt, which was assumed, still remains a contingent liability of the Delaware & Hudson Co.

The railroad system established by the Delaware & Hudson Co. and transferred to the Delaware & Hudson Railroad Corp.

in 1930 is the oldest in the country. It began as a canal company and was designed to distribute coal from associated Pennsylvania anthracite mines, among the richest in the country. Not until 1909 did it accept the functions of a common carrier. The system forms a bridge line between Montreal and New England and between Pennsylvania and New England, with connections at Schenectady, and Albany, New York, with a number of other railroads including the Pennsylvania, Reading, Lehigh Valley, Erie and the Boston & Maine.

Capitalization

The Delaware & Hudson Railroad Corp. has outstanding 515,740 shares of common stock all owned by the Delaware & Hudson Co., and $69,500,000 in funded debt. The disadvantage of the railroad's funded debt which is outstanding at a relatively high rate per mile of road, is partially offset because the Delaware & Hudson Co. has a contingent liability in regard to the Railroad Corp's debt. Fortunately there are no near-term debts of any consequence. In 1942 $1,000,000 Adirondack Railway 1st 4½s fall due and in the next year $49,000,000 1st and refunding 4s mature. The funded debt of the Railroad Corp. has been serviced throughout the depression. An initial dividend of $1 was paid to the Delaware & Hudson Co. on December 31, 1931 and nothing

has been paid since that date.

The sole capitalization of the Delaware & Hudson Co. is 514,483 shares of common stock par $100 on which large dividends were paid until recent years.

Traffic

The Delaware & Hudson Railroad Corp. is essentially an anthracite carrier. In 1936 as the following table reveals, 32.35% of operating revenue was received from the transportation of anthracite coal and 11.12% from bituminous.

Year	Products of Agri.	Animals & Prods	Products of Mines	Products of Forests	Mfrs. & Misc.
1932	4.61%	2.20%	50.06%	2.67%	22.28%
1933	4.14	2.45	49.84	2.97	24.37
1934	4.02	2.23	52.74	2.62	24.43
1935	4.12	2.10	50.53	3.23	26.45
1936	4.11	1.93	51.01	2.74	27.96

Year	Pass.	Anth. Coal	Bitum. Coal	*Paper
1932	5.99%	37.33%	8.65%	4.30%
1933	5.01	35.38	9.63	4.74
1934	4.90	37.23	10.57	4.92
1935	4.61	34.55	10.54	4.98
1936	4.57	32.35	11.12	5.10

* Includes newsprint paper and printing paper

Source: Mundy's "Earning Power of Railroads" Page 360.

In 1936 manufactures & miscellaneous amounted to only 27.96% of total operating revenue, products of forests 2.74%, products of agriculture 4.11%, while products of mines comprised more than 51% of total operating revenues.

Earnings

For years the road was a high and stable earner, but with changing conditions in the 1920's, accentuated by the depression, earning power of the formerly prosperous coal-railroad combination evaporated.

As the following table reveals, the downward trend in the Delaware & Hudson's traffic was merely accelerated by the depression.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$10,173,950	$5,236,498	1.94
1922	4,861,871	5,337,871	0.91
1923	10,198,837	5,487,138	1.86
1924	11,716,755	5,493,505	2.13
1925	10,927,166	5,692,190	1.92
1926	14,133,510	5,830,233	2.42
1927	8,698,599	5,626,738	1.55
1928	11,346,002	4,961,773	2.29
1929	12,578,187	4,769,473	2.64
1930	10,274,086	4,632,367	2.22
1931	7,703,946	4,460,916	1.73
1932	3,409,778	4,578,541	0.74
1933	3,265,624	*5,150,258	0.63
1934	3,542,392	*5,180,419	0.68
1935	2,582,991	*4,467,174	0.58
1936	4,333,981	*4,398,137	0.99

*Including interest on non-negotiable debt.

Source: Mundy's "Earning Power of Railroads" Page 361.

The road is essentially an anthracite carrier and inroads were steadily being made upon anthracite markets even before the depression set in. The record of earnings recovery in the early period of business improvement from depression low levels has been poor and apparently will continue so. The value of the railroad property as based upon earning power is intrinsically less than the debt outstanding against it.

Although earnings were not satisfactory during the depression, a rapid improvement was evidenced in 1936 by both the rail and coal properties. The Hudson Coal netted $335,000 versus a $666,000 loss in 1935, while the Delaware & Hudson Railroad Corp. lost only $927,000 versus $2,775,000 in 1935. Although at this writing, year-end statements have not been issued it is definitely known that the coal subsidiary experienced reduced earnings in 1937 and that the rail subsidiary may break even.

In the final analysis the strength, such as it is, of the Delaware & Hudson Co. lies in its investment portfolio, and particularly in its large holdings of New York Central common stock.

The Delaware & Hudson Co. has always been able to service its funded debt (now held by the Railroad Corp.) without any difficulties and, until recently had maintained dividends on the common at a very generous rate. In fact

$9 a share was paid from 1907 to 1931 when the dividend was cut to $7.50 in 1932 and nothing has been paid since that date. From the date of its organization to December, 31, 1936 the Company declared a total of 290 cash dividends, aggregating 828½ per cent or $187,129,887 not to mention numerous stock dividends.

Near Term Outlook

Although the Delaware & Hudson's rail-coal properties have scored material improvement since the depression depths, basic dependence upon anthracite precludes impressive earnings recovery.

The management, under the clever Chairman L. F. Loree, has turned its attention to other investments with considerable success, and has lined the treasury with huge profits from stock market operations in railroad shares, conducted in an effort to place the Delaware & Hudson Railroad Corp. at the head of a proposed new Eastern Trunk Line System. These ambitions have not been realized but meanwhile the Company's treasury owns a valuable list of marketable securities, including 495,000 shares of the capital stock of the New York Central. Income from this source over the near-term is unlikely owing to the difficulties now being experienced by the New York Central as a result of the recession in heavy industry activity and the tremendous increase

in operating expenses. It is very likely, therefore, that earnings of the Delaware & Hudson Co. will not be seen over the near-term.

On December 31, 1936 the current assets of the Delaware & Hudson Railroad Corp. were $6,321,141, including $2,400,-231 material and supplies, and $2,194,157 cash; current liabilities amounted to $4,589,358. On the same date, December 31, 1936, the Delaware and Hudson Co. had total assets of $121,315,331, consisting principally of $46,953,097 marketable stocks and bonds at cost, and $73,043,237 investments in and advances and loans to affiliated companies. Liabilities consisted principally of capital stock and surplus and in addition bank loans of $7,862,000.

Although the Delaware & Hudson may not experience difficulties during the next few years it, nevertheless, occupies a vulnerable position.

Longer Term Outlook

The Delaware & Hudson Co. as well as the Dealware & Hudson Railroad Corp. are chiefly dependent upon anthracite for earnings.

The history of the anthracite industry for the last two decades does not carry favorable implications for the future. The industry has lost markets because bitter strikes have

tied up production in Winter months and because competitive fuels, principally gas and oil, have made determined bids for the limited house heating market which the anthracite producers once regarded as their own private domain.

A glance at the statistics covering anthracite production is illuminating: the 1921 production of 90 million tons of anthracite declined to 54 million tons in 1922, a strike year, rose to 93 million tons in 1923 and gradually declined to 73 million tons in 1929. Depression influences accentuated this trend so that in 1933, production reached the record low point of 49 million tons. There has been a very limited recovery from the low levels of production, with 1936 output approximating 54 million tons.

There appears to be little hope that lower wage costs will aid the anthracite producers in their battle for existence; in fact, the trend appears to be in a reverse direction. As far as the Delaware & Hudson is concerned the road is relatively poor financially, as are most anthracite carriers, and lower tariffs for hauling anthracite hardly appear justified.

All things taken into consideration, it appears that the future of the anthracite industry is exceedingly drab and that competitive fuels will succeed in capturing a large portion of the market which the anthracite industry previously enjoyed.

With the entire railroad industry faced by the problem of higher operating costs, the anthracite-carrying roads appear to be in a very poor position in that expansion of anthracite traffic seems unlikely. The ICC decision, in the latter part of 1937, refusing higher rates on anthracite, while granting most of the freight increases requested, must be taken as an indication that the ICC did not believe that the anthracite industry could bear additional freight rates, and that higher tariffs would merely result in decreasing the anthracite tonnage moved. The decision may be said to bring into bold relief the plight of the industry and the carriers serving it. In view of the above the Delaware & Hudson Co. and Railroad Corp. do not face a favorable future.

Investment Status

The steady downward trend of anthracite traffic which is so vitally important to the Delaware & Hudson's well being, spells lower earnings in years to come. The road's already weakened position will not be able to withstand any sizeable shrinkage in revenues. The large investments of the Delaware & Hudson Co., chiefly New York Central stock, will not be able to ward off a financial crisis, for any length of time, which now appears inevitable.

The market movement of the securities of the Delaware & Hudson Railroad Corp. reveals plainly the speculative nature of the situation. The steady drop in anthracite traffic, with the resultant decline in earnings, coupled with the road's heavy capitalization, forecast receivership sometime in the not too distant future.

Poor's Rating		Price Range 1937 High	Low
B**	Adirondack Railway Co. 1st $4\frac{1}{2}$s 1942	99	90
B*	Delaware & Hudson 1st Ref. 4s 1943	95	47
C*	Delaware & Hudson Common stock	58	13

Under no circumstances could the above securities lay claim to any investment merit. They are obligations of a Company catering to a declining industry and although interest on the bonds is still being paid eventual default appears certain.

ILLINOIS CENTRAL RAILROAD CO.

With 6,575 miles of main line, the Illinois Central system comprises the largest north south railroad in the Middle West, providing the shortest route from Chicago to the Gulf of Mexico. The road has a perfect network of lines extending down the eastern side of the Mississippi, through Illinois, Kentucky, Tennessee and Mississippi, thereby serving the rich Mississippi Valley basin for practically its entire course. Lines extend northwestward and westward into Minnesota, Iowa, South Dakota, and to the transcontinental gateways at Omah Nebraska and the Twin Cities of Minneapolis and St. Paul.

On the East, stems branch out to Indianapolis, Louisville and Birmingham and through the controlled Central Railway of Georgia, now in receivership, the lines reach the Atlantic Seaboard at Savannah.

At its termini in Chicago and New Orleans, the road has a strong position, particularly in the former city where it owns twenty-six city blocks near the "Loop" district.

Capitalization

With funded debt of $370,106,000 representing 70.6% of

total capitalization or nearly $57,000 a mile, the Illinois Central occupies a vulnerable position. The large funded debt coupled with $18,645,700 non-cumulative 6% preferred stock provides sizeable leverage for the 1,358,000 common shares when earnings are sufficient to cover fixed charges 1.50 times or more, but when earnings are poor the top-heavy capitalization causes sizeable deficits.

Traffic

Covering such a wide expanse of territory, it is natural that the traffic of the Illinois Central should be of a diverse nature. As shown by the following table, in the years from 1932 to 1936 products of agriculture provided slightly more than 19% of total freight revenues. Products of mines contributed about 22%, with bituminous coal the leading revenue producing commodity through its contribution of around 17% of the road's total freight revenues. Products of animals contributed about 6%, products of forests about 8% and manufactures and miscellaneous products about 26%.

Year	Products of Agri.	Animals & Prods	Products of Mines	Products of Forests	Mfrs. & Misc.
1932	20.57%	5.94%	24.80%	5.69%	21.71%
1933	19.79	6.36	21.38	6.79	23.70
1934	19.86	6.91	21.33	6.81	26.32
1935	18.58	5.27	21.99	8.63	28.78
1936	18.39	5.20	20.74	9.18	29.23

Source: Mundy's "Earning Power of Railroads" Page 425.

Leading revenue commodities in the order of their importance are: bituminous coal, bananas, lumber, shingles, petroleum products, cotton, grain, fresh meats and packing house products, automobiles, vegetables, iron and steel and a variety of manufacturers. The nature of the road's traffic renders it particularly vulnerable to highway competition. In addition, competition from government subsidized shipping on the Mississippi must be faced.

A study of the freight traffic of the Illinois Central reveals a dangerously weak situation. In 1927 the road carried 63,301,448 tons of freight and its freight traffic density - the number of tons of freight carried one mile per mile of road operated - which is one of the best means of determining the health of a railroad was 2,441,939.

At the bottom of the depression 32,965,667 tons of freight were handled and the tonnage density was 1,157,692. In 1936 the corresponding figures were 44,843,897 tons and 1,615,-056 respectively.

From the 1927 peak, tonnage declined 47.9% and traffic density 52.6% to the 1933 low from which recoveries of 36% and 39.5% had been accomplished by the end of 1936. Compared with 1927, however, 1936 tonnage was still off 29.2% and traffic density was 33.9% under the earlier year's level.

It is rather apparent from a comparison of the foregoing figures and the general business level obtaining in

1927 and 1936 - the Federal Reserve Board Index of industrial production stood at 106% of the 1923-25 average for the former year and at 105% for the latter year - that something is making serious inroads into the Illinois Central's traffic; the competitors are the highway and the water carriers.

To a greater extent than perhaps any other major railroad the Illinois Central is the victim of unregulated or subsidized competition. Its main line parallels the Mississippi from Cairo south and its territory generally is exactly the same as that in which inland waterway carriers are active operators.

The importance of this is that the water carriers are carriers of largely bulky goods. A study of the Illinois Central's traffic reveals that the major portion is of bulk goods. In addition to this the road has had to face the usual competition of private automobiles and buses as passenger carriers and trucks as short haul carriers of high revenue freight. The rusult has been to make the Illinois Central a high speed road - overnight package freight service Chicago to Memphis is just one example - but speed means expense.

To round out its woes the Illinois Central has seen its export traffic dwindle with the stagnation in world trade and shrinking markets for American cotton and receipts from western connections have suffered from the recent years

of drought in the Southwest especially and from the entire West. In the circumstances it is not to be wondered that earning power has shrunk.

Earnings

Unquestionably the earning power of the Illinois Central has been seriously impaired. Reduced maintenance restricted depression losses, but the unusual degree of leverage tended to exaggerate changes in share earnings. In all probability, much of the carrier's cotton trade for export has been permanently lost, while there is little prospect for relief from highway and waterway competition. In fact the situation has caused the road to operate fast freights which are very costly.

Year	Net Income	Earnings Per Share	Common Dividends
1922	$16,090,000	$14.29	$7.00
1923	15,485,000	13.55	7.00
1924	16,249,000	12.39	7.00
1925	17,552,000	12.86	7.00
1926	17,150,000	12.06	7.00
1927	12,132,000	8.14	7.00
1928	13,250,000	8.94	7.00
1929	13,520,000	9.14	7.00
1930	9,290,000	6.02	7.00
1931	*3,582,000	*3.41	3.50
1932	*3,506,000	*3.40	0.00
1933	158,000	*0.71	0.00
1934	*2,965,000	*3.01	0.00
1935	*9,932,000	*8.07	0.00
1936	765,000	*0.19	0.00

*Deficit

As can readily be seen by the above table earnings rapidly disappeared during the depression and have not improved during the last two years to the same extent as has business in general. This is chiefly due, as has been pointed out before, to competition from highway and water carriers.

Near Term Outlook

As a result of improved agricultural conditions in the territory served and a high level of activity in the heavy industries, until late in 1937, the Illinois Central should cover fixed charges for the full year. However, acute competition has so pressed the road that continuation of the current industrial recession promises to render 1938 operations unprofitable.

The only maturities which the road has during 1938 are equipment trust issues which for the full year will aggregate around $6,877,000. It is likely that these maturities will be met either by RFC loans or help from other Governmental agencies. The road is unable to borrow through banking sources any of the funds required to pay the maturity in as much as its principal collateral is now pledged with the Government agencies.

Current financial position is relatively weak and the road must rely upon outside aid to carry it over the intermediate term.

Longer Term Outlook

With so large a proportion of its mileage in the South where prospects for increased traffic are not so convincing as they are in the Eastern and Central regions, Illinois Central faces the prospect of supporting capitalization in a mediocre manner. The road's traffic is vulnerable to competition from other carriers even more so than most roads. Earnings improvement since the depression has not been satisfactory and the prospects of any substantial improvement is very unlikely. The road's top-heavy capitalization precludes any improvement in earnings over the long-term. The rate increases recently granted and those expected in March 1938 will not be sufficient to enable the road to adequately support its capitalization. Even in the prosperous year 1929 the railroad covered its fixed charges only 1.72 times.

Coupled with its large capitalization the Illinois Central owes the RFC a total of $35,195,000 and the PWA an additional $7,750,000. Although the roads operating efficiency is fairly high relative to its territory, considerable sums should be spent on maintenance.

Unquestionably the road's position has been impaired and it is very doubtful whether the road will be able to support its capitalization on future earnings. Competition from subsidized river boats and from trucks has taken the

most valuable traffic and any increase in rates would no doubt deprive the road of still more traffic.

The Illinois Central has just about reached its borrowing capacity. All available collateral has been tied up in RFC loans and the banks are unwilling to lend the road additional money. Capitalization is too heavy and almost insupportable. It is doubtful if the Illinois Central could weather another depression and it is very probable that the road's capitalization will have to be materially reduced within the next five years, barring some unforseen development.

Investment Status

The Illinois Central has anything but a satisfactory outlook. In fact, it is not particularly rash to say that the road will be in financial trouble in the event of another depression or a prolonged slump in business. In view of the Illinois Central's declining position, none of its securities are worthy of consideration for investment purposes. The violent fluctuations in the market levels of its securities ably show the speculative position which they hold.

Poor's Rating		Price Range 1937 High	Price Range 1937 Low
A	Illinois Central 1st 4s 1951	111	97

Poor's Rating		Price Range 1937 High	Low
A	Illinois Central 1st $3\frac{1}{2}$s 1951	108	93
A	Illinois Central 3s 1951	107	96
A	Illinois Central (Cairo Bridge) 4s 1950	80	32
B*	Illinois Central Refunding 5s 1955	90	41
B*	Illinois Central Refunding 4s 1955	95	51
B*	Illinois Central Purchased Lines $3\frac{1}{2}$s 1952	96	45
B*	Illinois Central Collateral Trust 4s 1953	90	49
B	Illinois Central 4 3/4s 1966	105	56
C	Illinois Central 6% non-cum. Conv. Preferred	68	16
D*	Illinois Central Common Stock	38	8

With the long-term outlook for the road decidedly unpromising its securities are not suitable for any type of an account.

LOUISVILLE & NASHVILLE RAILROAD CO.

The Louisville & Nashville, controlled by the Atlantic Coast Line embraces 5,009 miles, principally in Kentucky, Tennessee and Alabama with the northern portion centering at Louisville from where lines lead west to St. Louis and east to Cincinnati and the Kentucky bituminous fields. Southern routes of the road terminate at Nashville, Memphis, Birmingham, Montgomery and the Gulf at Pensacola and New Orleans.

The Louisville & Nashville operates into Chicago over the Chicago, Indianapolis and Louisville Railway - the Monon line - which it controls jointly with the Southern Railway. The Monon has been operating under the provisions of the Federal Bankruptcy Act since the start of 1934.

The road is one of the important coal carriers of the country, its lines tapping the fields of Kentucky, Alabama, western Virginia and eastern Tennessee, for movement into the Chicago, Toledo and Detroit markets. The road is a leading transporter of freight through the ports of Mobile, New Orleans and Pensacola.

It is in direct competition with the Illinois Central Railroad for traffic between Lake Michigan and the Gul and is the principal competitor of the Southern Railway between Cincinnati and New Orleans.

Capitalization

Although the ratio of debt to total capitalization is quite high, slightly more than 65%, the debt capitalization of $22,642,530 is slightly less than $45,000 per mile of road and is not excessive. The management has been farsighted and has substituted 3¾% bonds to take the place of a portion of the 5% and 6% issues. The 1,170,000 shares of common stock, par value $100, comprise the remaining 35% of the capitalization and possess a fair degree of leverage. On December 31, 1936 the Atlantic Coast Line owned 596,700 shares or 51% of the capital stock. On the whole the capital structure of the Louisville & Nashville can be classified as satisfactory.

Traffic

As can readily be seen by referring to the following tables the road is primarily dependent upon bituminous traffic for its revenue. In 1936 39.23% of total operating revenue was produced by this traffic and 7.24% by passenger traffic, 2.81% from refined petroleum oils and 3.41% from lumber shingles and laths. Products of mines produce 49% of total revenues and manufactures and miscellaneous approximately 15% in normal times.

Year	Products of Agri.	Animals & Prods.	Products of Mines	Mfrs. & Misc.
1932	10.44%	2.36%	41.61%	18.04
1933	9.97	2.41	42.92	19.05
1934	9.85	2.78	41.53	20.45
1935	8.00	2.19	43.54	20.79
1936	7.61	1.84	46.05	20.93

Year	Pass.	Bitum. Coal	Refined Pete. Oils	Lumber Shingles & Lath
1932	8.10%	36.01%	4.89%	2.92%
1933	6.90	36.81	4.39	3.29
1934	7.58	35.31	4.29	2.62
1935	7.63	37.37	3.79	3.19
1936	7.24	39.23	2.81	3.41

Source: Mundy's "Earning Power of Railroads" Page 467.

The road handles important agricultural traffic, as well as appreciable quantities of petroleum products, iron and steel, lumber and fertilizer. Passenger traffic is less important to Louisville & Nashville than to most Southern roads.

Earnings

From the 1929 peak earnings diminished steadily until they reached the vanishing point in 1932, when a net loss of $2,108,875 was incurred - the road's only unprofitable year

of the depression. Earnings recovered rapidly from the depression lows and in 1936 the Louisville & Nashville reported fixed charge coverage of 1.92 times and per share earnings of $8.42. Despite extensive flood damage and the loss of rate surcharges, early 1937 earnings were again higher. However , the August and October wage boosts increased costs while the sudden slump in heavy industry activity caused freight tonnage to decline sharply. As a result the year 1937 is expected to net approximately $6.50 per share.

Dividends on the common have been paid with few exceptions in every year since 1864. Although a dividend was not paid in 1933, the previous omission was as far back as 1898, dividends were resumed with a $3.00 payment in 1934 which was increased to $6.00 in 1936 and 1937. The following table clearly shows the excellent record of the Louisville & Nashville.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$8,534,361	$8,936,247	0.96
1922	19,450,012	9,772,264	1.99
1923	21,649,610	10,032,988	2.16
1924	25,164,400	11,031,606	2.28
1925	30,102,519	11,401,808	2.64
1926	30,764,434	11,342,323	2.71
1927	27,901,094	11,175,663	2.50
1928	25,408,846	11,085,626	2.29
1929	24,787,273	11,060,730	2.24
1930	17,681,653	11,075,571	1.60

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1931	$11,843,511	$10,803,565	1.10
1932	8,642,410	10,851,285	0.80
1933	12,431,276	10,635,560	1.17
1934	13,461,746	10,494,361	1.28
1935	14,444,028	10,315,085	1.40
1936	20,052,235	10,423,763	1.92

Source: Mundy's "Earning Power of Railroads" Page 468.

The operating efficiency of the Louisville & Nashville has been above the average for Southern railroads. In fact since 1932, the operating ratio has been below the 79.2% of 1929, and in 1936 was 72.1%, the lowest since 1917. The properties have been maintained in a very satisfactory manner and maintenance charges together with depreciation expenses have been adequate.

Near Term Outlook

The Louisville & Nashville has no loans from the Government and its current working capital position is very strong. On November 31, 1937 current assets, including cash of $14,927,892, amounted to $33,977,224, and were more than three times the current liabilities of $10,302,460. Only $420,00 in funded debt is due within six months and there are no near term maturities - recent maturities were refinanced at lower rates of interest a few years ago.

Without question the road is in excellent shape and should have no financial difficulties for a good many years.

Longer Term Outlook

The ability of the road to weather the depression with flying colors is evidence of its strength and satisfactory financial position. Maintenance charges have always been adequate and the property is in excellent shape. Although the current recession is temporarily cutting into earnings they are, nevertheless, still adequate and quite substantial.

The only flaw in the long-term picture is the road's dependence upon bituminous coal for revenue. The demand for bituminous coal has been decreasing for a good many years. Its customers are gradually using other fuels. Although the decline is not in anyway threatening at the present time its effects are, nevertheless, noticeable. However, even though earnings gains over a long span of years may be restricted by inroads which natural gas, oil and other competing fuels are making upon markets for coal the Louisville & Nashville should be able to make at least moderate progress during any period featured by normal business. The road's strong physical character and sound financial position guaranty it a secure place amongst railroads for a good many years to come.

Investment Status

Notwithstanding the drop in earnings from 1926 to 1932 and the road's dependence upon bituminous traffic, its position, condition and outlook are satisfactory. The strength and character of the railroad are reflected in its outstanding dividend record and earnings. The Louisville & Nashville bonds although not of the highest grade are suitable for most accounts.

Poor's Rating		Price Range 1937 High	Low
A**	Louisville & Nashville (St. L.) 3s 1980	96	85
A**	Louisville & Nashville Unif. 4s 1940	109	103
A**	Louisville & Nashville (Pad. & M.) 1st 4s'40	112	105
A*	Louisville & Nashville 1st & Ref. $3\frac{3}{4}$s 2003	98	79
A*	Louisville & Nashville 1st & Ref. 4s 2003	104	85
A*	Louisville & Nashville 1st & Ref. $4\frac{1}{2}$s 2003	109	92
A*	Louisville & Nashville 1st & Ref. 5s 2003	111	98
B*	Louisville & Nashville Common Stock	99	48

The top bonds of the Louisville & Nashville railroad such as the St. Louis Division 3s 1980, the Unified 4s 1940 and the Paducah & Memphis Division 1st 4s 1946 are suitable for the most conservative accounts. The 1st & Refunding issues, however, are subject to market fluctuations and cannot be considered satisfactory for those desiring stability of principal. The common stock is only a speculation.

NEW YORK CENTRAL RAILROAD CO.

Operating some 26,000 miles of road, the New York Central System stands second only to the Pennsylvania in Eastern Trunk Line territory. First track owned, leased and otherwise operated totals approximately 11,500 miles. The Company dominates New York State and is strongly entrenched in the Great Lakes Section. It also has a direct entrance into New England through the Boston & Albany RR. Its lines cover the most highly industrialized and populous sections of the country. Its main line from New York to Chicago, the famed "water level" route taps the major industrial centers of the East and Middle West. A community of interest with western roads with which connections are made at St. Louis, gives the Central a strong grasp on a good volume of transcontinental traffic.

Capitalization

As of December 31, 1936, the $981,892,000 funded debt on a system basis, comprised 61.3% of total capitalization, including $21,338,000 serially payable to the State of New York for elimination of grade crossings.

In 1934 stockholders subscribed for virtually all of a

$59,900,000 collateral trust bond issue sold in that year and when the conversion privilege changed from $40 to $50 a share on May 10, 1937, 97% of the bonds were converted. This improved the Company's capital set up, but increased the outstanding common by 1,455,000 or 29%. In 1937 all government advances were paid prior to maturity and floating debt was eliminated. Outstanding equipment trust certificates were cut down to $33,822,000 as of December 31,1936 from $40,736,000 a year earlier; Reconstruction Finance Corp. and PWA loans of $15,849,000 were paid and loans and bills payable including bank and demand loans classed as funded debt were reduced to $198,440 from $65,300,763 while outstanding convertible secured bonds and other secured bonds and notes increased to $122,510,600 from $59,911,100.

Although considerable improvement has been made in recent years by the Central's financing program the road is still burdened by a heavy funded debt. However, the amount outstanding per mile of road is not unreasonable especially when considering the compact nature of the territory which the system serves. Debt has been serviced throughout the depression, with the help, however, of substantial loans.

During the next fifteen years, more than $250,000,000 in long-term debt matures. The road, itself, has proposed a plan for meeting the maturities by accumulating yearly depreciation charges and applying them to debt retirements.

Whether this is feasible or not remains to be seen. It certainly raises the question as to how the road would finance property replacements.

Traffic

The territory served is densely populated and exceedingly well developed economically. There is a good diversification of manufactured and agricultural products to be shipped and excellent markets in the many large industrial cities, within reach of the Company's lines. Probably no section of the country is so self-sustaining as the one served by this system. Not unnatural, then, is it that freight tonnage, which consists largely of products of mines principally soft and hard coal, and manufactured products comprise the well-paying freight. Passenger business is important as is reflected in the stable revenues from this end compared with other roads. This may be attributed to the great number of commuters that use the Company's lines.

As is shown by the following table passengers and bituminous coal were the most important revenue producers in 1936 with iron and steel, automobile and trucks next in order of importance.

Year	Pass.	Bitum. Coal	Iron & Steel	Refined Pete. Oils	Autos, Pass. & Trucks	Anth. Coal
1932	20.49%	15.85%	2.09%	3.15%	1.53%	1.85%
1933	18.79	17.22	2.93	2.92	2.78	1.76
1934	18.55	17.28	3.27	2.63	3.82	1.96
1935	17.83	17.42	4.33	2.35	4.86	1.83
1936	17.33	17.22	5.25	2.07	4.87	1.72

Source: Mundy's "Earning Power of Railroads" Page 526.

Passenger revenues in 1929 constituted nearly 25% of the total, but by 1933 had dwindled to less than 20%. Passenger business during recent years has probably been Central's largest liability but developments since 1936 have been encouraging. Streamline trains have been installed on an experimental basis, new equipment purchased and time schedules lowered.

New York Central's earnings during the prosperous 20's ranged between $8.01 and$16.91 a share with fixed charges covered more than twice. However, earnings were quick to disappear with the advent of the depression. Fixed charge coverage dropped from 2.33 times in 1929 to 0.70 times in 1932 the low for the depression. Central's recovery in earnings since 1932, has followed closely the trend of activity in the heavy industries and has been magnified in its bearing upon the stock through the effect of leverage. It was not until 1935 that fixed charges were covered and then only 1.00 times. Recovery in 1936 was more substantial and

fixed charges were covered 1.16 times. It is estimated that the coverage for 1937 will be lower than 1936. With the present depression in heavy industry reaching substantial proportions and with costs rising, lower earnings can scarcely be avoided over the near-term even should higher rates be realized.

The Company owns valuable New York City real estate in the Grand Central zone and has shrewdly utilized its "air rights". Other investments include a majority interest in Pittsburg & Lake Erie which gives the system its valuable entrance into the Pittsburgh steel district, and substantial holdings in the Reading & Rutland railroads. The Company reported other income of $21,906,224 in 1936 received from its large investment in affiliated companies.

An idea of the variableness of the Central's traffic can be obtained by a study of the following table.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$73,585,031	$52,641,288	1.40
1922	71,075,738	50,440,552	1.41
1923	95,251,495	49,912,068	1.90
1924	88,324,973	49,074,573	1.80
1925	92,969,289	44,342,065	2.10
1926	100,756,028	45,091,987	2.23
1927	103,948,083	45,382,939	2.29
1928	94,787,111	44,452,626	2.13
1929	135,491,477	58,062,894	2.33
1930	94,438,866	58,457,075	1.62

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1931	$61,045,160	$58,615,059	1.04
1932	41,716,693	59,973,093	0.70
1933	54,206,763	59,619,277	0.91
1934	51,972,729	59,655,064	0.87
1935	58,486,391	58,371,345	1.00
1936	66,074,725	57,141,550	1.16

Source: Mundy's "Earning Power of Railroads" Page 528.

As the above table readily shows the earnings trend of the road follows closely the activity in general business; and is very vulner ble to a decline in steel activity and manufacturing.

From 1915 to 1931 dividends on the common were paid in each year and amounts ranged from a low of $5 paid from 1915 to 1922 to a high of $8 paid from 1928 to 1930, after 1931 dividends have not been paid. Although the road has never had difficulties in meeting interest payments the present financial strain is a decided test of the road's ability to weather difficult conditions.

Near Term Outlook

The current recession in business dating from August 1937 has placed a severe strain upon the New York Central and coupled with the loss of surcharges and increased operating expenses the road is having a difficult time. Current finance on November 30, 1937 appeared sufficiently strong to

enable the road to emerge successfully from its present predicament. Current assets, including cash of $17,593,728, amounted to $74,109,304 and compared with current liabilities of $47,338,842. Moreover, debt maturing within six months amounts to only $6,817,000 and no doubt will be taken care of without trouble. However, the near-term outlook which may be classified as fair may take a more serious aspect if the expected increase in rates is not substantial and if the business recession is not soon over.

Longer Term Outlook

During the depression the New York Central cut maintenance charges drastically to bolster the earnings available for fixed charges. From 1927 to 1929 an average of $7,200 per mile was spent for maintenance of way and in the period 1933-1936 this expenditure had decreased to $2,700. Coupled with decreased maintenance charges the Company also made a large reduction in depreciation charges. This, on the whole, spells deferred needs. This condition, normally would not be of serious consequence. However, it must be kept in mind that the Company has more than $250,000,000 in long-term debt maturing within the next fifteen years. In all fairness it must be said that the Company has taken hold of this maturity problem and in the past two years has effected many

beneficial changes. However, the problems ahead are very formidable.

The road derives the bulk of its revenues from movements of coal, steel and other manufactured and miscellaneous products and is thus geared in its operations to the pace of general business activity. While this factor serves sharply to depress earnings during periods characterized by a receding tide of industrial fortunes, the road over a long span of years in the past has recorded average annual returns comfortably providing for interest requirements.

Recovery from the depression low of 1932 when fixed charges were covered only 0.70 times has not as yet been achieved. This does not necessarily mean that the road's traffic and earning power have been permanently impaired but it does indicate that a return to former earning power is quite unlikely. However, it is too early to place any prediction upon the Company's ability to again produce sufficient revenue to remove it from the border line classification.

All things considered the declining trend in passenger traffic, and the inability of the road to recover from the depression lows, coupled with sizeable deferred maintenance charges and $250,000,000 in debt to be met within the next fifteen years, places an uncertain outlook upon the future of the New York Central.

Investment Status

The long-term outlook for the New York Central is uncertain, therefore, its securities cannot be classified as riskless investments. The inability of the road to maintain earnings during the depression indicates a decided weakness. Recovery since 1932 has not been pronounced giving evidence that the road's former position may never be attained.

Poor's Rating		Price Range 1937 High	Low
A**	New York Central & Hudson River $3\frac{1}{2}$s 1997	105	90
A*	Lake Shore Collateral $3\frac{1}{2}$s 1998	99	80
A*	Michigan Central Collateral $3\frac{1}{2}$s 1998	97	78
A	New York Central Conv. $3\frac{1}{4}$s 1952	110	80
A	New York Central Cons. 4s 1998	106	77
B**	New York Central Sec. S.F. $3\frac{3}{4}$s 1946	104	86
B**	New York Central Ref. Imp. $4\frac{1}{2}$s 2013	96	59
B**	New York Central Ref. Imp. 5s 2013	103	68
C**	New York Central Common Stock	55	15

The New York Central & Hudson River Mortgage $3\frac{1}{2}$s and the Lake Shore and Michigan Central Collateral $3\frac{1}{2}$s, guaranteed by the New York Central are the highest grade bonds in the system, barring, of course, equipment trust certificates. However, their market position is too insecure to warrant

their inclusion in portfolios demanding the highest investment calibre. On the whole the issues of the New York Central are subject to fairly wide fluctuations in market price in line with other bonds embodying a speculative tinge. The bonds should not be considered by those requiring safety of principal. However, at current levels considerably below par the bonds are interesting speculations on the ability of the New York Central to raise itself from the border line class.

NEW YORK, CHICAGO AND ST. LOUIS RAILROAD CO.

The New York Chicago & St. Louis Railroad, better known as "Nickel Plate", is controlled by the Chesapeake & Ohio Ry., and operates approximately 1,700 miles of track. The road's lines extend between Buffalo and Chicago and between Buffalo and St. Louis, with feeder lines extending to Detroit, Indianapolis, and Peoria, Illinois. Control of the Wheeling & Lake Erie affords entry into the West Virginia coal fields. The road has the advantage of a heavy interchange of traffic with the Pere Marquette, Wheeling & Lake Erie and other railroads in the Van Sweringen group.

Capitalization

Funded debt at roughly $160,000,000 or 70% of total capitalization, is fairly high on a per mile basis although traffic density likewise is above average. Together with the $36,054,000 6% preferred stock, the funded debt affords the 337,427 common shares greater leverage than that possessed by practically any rail stock not representing property in receivership.

The depression hit the road at a period when it was

necessary to meet substantial maturities. In 1932, $20,-000,000 notes fell due. A 25% cash payment was made and 75% ($15,000,000) was extended to October 1, 1935. At maturity the road sought to extend these notes for three years at the same rate of interest (6%). After some hesitation on the part of investors, a sufficient number assented to the plan which was declared operative toward the end of January, 1936. More than 90% of the notes were deposited under the plan. In the early part of 1938 an offer was made to the holders of these 6% notes to extend them to October 1, 1947 at 3% interest. This offer has not as yet been accepted. (February 10, 1938)

Traffic

Nickel Plate has become heavily dependent on industrial output largely through guidance of the Van Sweringen interests in establishing the road as a leading hauler of bituminous coal picked up from the Chesapeake & Ohio and the Hocking Valley Railway, which tap the mining fields in West Virginia and eastern Kentucky. The Van Sweringen interests also combined in the system the Toledo, St. Louis & Western Railroad and the Lake Erie and Western Railroad, which brought a diversification of freight traffic to include substantial movement of corn, wheat and other agricultural products.

Important traffic in petroleum products northward and eastward from St. Louis also was realized with the large scale development of oil fields in the Texas area. By far the greater part of the road's freight traffic comes from connecting lines - about 75% of revenue tonnage last year.

The following table shows the principal sources of revenue.

Year	Products of Agri.	Animals & Prods	Products of Mines	Products of Forests	Mfrs. & Misc.
1932	20.60%	21.48%	15.06%	2.34%	31.52%
1933	17.00	21.75	18.35	2.26	34.14
1934	15.88	20.02	19.15	2.08	36.39
1935	15.72	14.35	20.91	2.60	41.27
1936	16.72	12.70	19.40	2.97	44.40

Source: Mundy's Earning Power of Railroads Page 546.

The principal products transported are bituminous coal, petroleum products, motor vehicles and parts, steel products, building supplies and grain. Manufactured and miscellaneous products including less-than-car-load-merchandise in 1936 accounted for more than 50% of total freight revenues. In the same year the leading commodities carried together with their contribution to freight revenues were; bituminous coal 13.64%, iron and steel 8.93%, grain and flour 8.36% and fresh meats and packing house products 6.56%. Passenger traffic is of nominal significance.

Earnings

Taken over practically as a cast off from the New York Central in 1916 by the late Van Sweringen brothers, the Nickel Plate subsequently merged with several smaller properties and has been developed into a highly efficient railroad that commanded more than its share of traffic during the prosperous years and as the following table shows has made an outstanding record of earnings until recent years.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1922	$8,805,320	$3,465,356	2.54
1923	10,398,887	4,067,545	2.56
1924	10,988,721	5,119,474	2.15
1925	12,056,906	5,611,099	2.15
1926	13,669,605	5,603,297	2.44
1927	12,469,579	5,803,102	2.14
1928	12,261,088	5,882,378	2.08
1929	13,585,193	6,195,151	2.19
1930	12,270,117	7,874,373	1.56
1931	7,555,016	7,765,429	0.97
1932	3,507,694	7,918,128	0.44
1933	6,582,368	7,788,004	0.84
1934	7,522,575	7,463,941	1.01
1935	8,581,792	7,465,863	1.15
*1936	14,883,205	7,502,723	1.98

*Income includes special payment of $4,838,106 from Wheeling and Lake Erie Ry. on account of accumulated dividends on the 7% prior lien stock.

Source: Mundy's "Earning Power of Railroads" Page 547.

In the eight years preceding the depression earnings were relatively stable varying between $5,870,000 in 1924 and $8,067,000 in 1926, an average of $15.82 a share on the

common stock. During the depression the high leverage factor operated against the junior equity with telling effect. At the depths of the depression in 1932 fixed charges were covered 0.44 times and a deficit of $19.48 was reported on the common shares.

Recovery from the depression lows was slow and in line with the recovery in the heavy industries. Rising activity in the heavy industries, particularly steel, together with the expansion in the motor industry coupled with a special payment of $4,838,106 from the Wheeling and Lake Erie Ry. on account of accumulations on the 7% prior lien stock, brought fixed charge coverage to 1.98 in 1936. Despite higher costs, floods and interruptions in industrial operations, earnings continued their favorable trend until late in 1937 when the sudden drop in business cut deeply into earnings and fixed charges were just about covered for the full year.

Substantial common dividends were paid between 1923 and 1931 and since the latter date dividends have been omitted. Payments were made regularly on the 6% preferred until 1932 and none thereafter. As of January 1, 1938 preferred arrearages approximated $13,520,000 or $37.50 a share.

Near Term Outlook

The recession in business dating from August 1937 has

created great uncertainity concerning the New York Chicago & St. Louis's ability to extend or refund its $15,000,000 notes due October 1, 1938. Perhaps the failure of the Erie Railroad in January of 1938 has caused these fears to be current. The Nickel Plate, however, unlike the Erie, is in good financial shape, having paid off all RFC loans and other floating debt by an issue of $16,000,000 secured 4s, in August 1936. Current assets on November 30, 1937, including $5,077,850 in cash, amounted to $9,859,914 and were almost twice current liabilities of $5,439,034. While this condition seems to be quite favorable the treasury is otherwise bare with almost no balance of unpledged marketable or other investments that could be used to collateralize a loan from the RFC. Practically all the valuable security holdings of the road are pledged as security under the secured 4s of 1946.

The road's success in refunding or extending the notes before their due date depends upon the size of the freight rate increase and upon the sentiment of business in general. If business shows signs of improvement in the fall of 1938 and the freight rate increases are satisfactory it is very likely that the Nickel Plate will be able to extend or refund the notes. If, on the other hand, business does not show the expected improvement before this fall the assistance of the Chesapeake & Ohio, which controls the Nickel Plate, will

be needed. Although the Chesapeake & Ohio did not come to the rescue of the controlled Erie, there are many indications that it will help the Nickel Plate out of its difficulties, because the latter is in far better financial shape than the Erie and is a more promising and valuable road. Furthermore, the Chesapeake & Ohio came to the rescue of the Nickel Plate back in 1935 when the condition of the road and its outlook was not nearly so satisfactory as at present. The fate of the Erie has little necessary connection with this case.

Although the near-term outlook for the road is uncertain, there is a good chance that the Nickel Plate will escape receivership. All things considered, it appears likely that a substantial freight rate increase will be granted sometime in March 1938 and that business will show definite signs of improving before the fall and that the Nickel Plate will be able to extend or refund its maturing note issue without any assistance from the Chesapeake & Ohio or the RFC. In the event that conditions do not improve sufficiently to warrant an extension or a refund the Chesapeake & Ohio will, no doubt, come personally to the rescue of the road, or it will guarantee a loan from the RFC, thus helping the Nickel Plate over this difficult period.

Longer Term Outlook

With an exceptionally heavy funded debt the New York

Chicago & St. Louis is in a poor position to weather financial storms. Moreover, the road is dependent to an extreme degree upon a sustained activity in general business for its well-being. Any substantial drop in business is rapidly reflected in the railroad's earnings and, due to the extensive funded debt, quickly forces the road into the red. Financial condition while temporarily satisfactory, due to the $4,032,000 received from the Wheeling and Lake Erie in settlement of preferred accumulations, is not sound. The road has used up practically all its available collateral, and while no loans are owing to the RFC or banks, this source of revenue will, no doubt, be unavailable in time of need unless the Nickel Plate can induce the Chesapeake & Ohio to guarantee the loan.

The long-term outlook for the Nickel Plate cannot be classified as favorable. The conditions which are preventing the road from returning to its former earning power are not temporary. The competition of the private car, the motor truck and the relocation of industry have definitely impaired the earning power of this once powerful and profitable road. That future earning power will be insufficient to support the present capitalization, is very probable. The road no doubt will continue in its present state until the next large financial upset in general business, then, the road will be forced to recapitalize and to reduce funded debt to a supportable size in relation to the value of the road and its

earning power.

The salvation of the New York Chicago & St. Louis may be realized by a merger with the Chesapeake & Ohio Ry. before serious difficulties arise. In fact, a merger with the Chesapeake & Ohio appears a logical eventuality, as that road will soon acquire from affiliates 57% of Nickel Plate's common. Moreover, merger would be a step in the formation of the ICC's proposed consolidated rail system number six.

Investment Status

It is obvious that the securities of a road, as near to a financial colapse as the New York Chicago & St. Louis, could not possess any investment merit. Although the road may not fail during the next few years it is doubtful whether it could last through another severe depression.

The following table showing the violent fluctuations in market price of the securities of the New York Chicago & St. Louis in 1937, is sufficient evidence of the road's weak position.

Poor's Rating		Price Range 1937 High	Low
B**	New York Chicago & St. Louis notes 4s 1946	105	87
B*	New York Chicago & St. Louis Ref. 5½s 1974	105	69
B*	New York Chicago & St. Louis Ref. 4½s 1978	95	53

Poor's Rating		Price Range 1937 High	Low
B	New York Chicago & St. Louis 6% notes 1938	101	71
B**	New York Chicago & St. Louis Col. Trust 4s'46	105	87
C*	New York Chicago & St. Louis 6% Preferred	100	30
C	New York Chicago & St. Louis Common	72	14

PENNSYLVANIA RAILROAD CO.

The Pennsylvania is the largest and strongest of the Eastern Trunk Line systems. It operates over 10,000 miles of road in thirteen states east of the Mississippi River and north of the Ohio, serving fourteen of the largest states in the area. Its extensive lines form a veritable network through the great centers of coal and iron production. During its long existence it has undergone great physical expansion, which naturally has been accompanied by a corresponding increase in capitalization. The Company is known as the world's largest transportation system; it not only operates more mileage than any other railroad in the country but also handles more freight and more passengers and it has more multiple track mileage, higher standards of road-bed and equipment.

The management has been extremely aggressive in adopting innovations, and in combating the competition from other forms of transportation. The Company completed during 1935 the electrification of 1,405 miles of track for both passenger and freight services, between New York and Washington. In some sections of the territory served, store-door-pick-up and delivery service has been instituted in order to meet

competition from motor trucks.

The Pennsylvania has large investments in railroad properties outside its own system giving it working control of the Lehigh Valley, Norfolk & Western, Wabash and in the New York New Haven & Hartford.

Capitalization

As compared with other eastern roads, the Pennsylvania's debt is conservative being only $701,279,044. Moreover, it is supportable as is shown by the fact that fixed charges were earned throughout the depression and not at the expense of reduced maintenance. For the railroad company proper, funded debt comprises 51% of total capitalization which is below the national average. If leased line debt is counted, however, the ratio for the system rises to 59%. There is no preferred stock outstanding and only 13,167,754 shares of common, par value $50.

Traffic

Occupying as it does a dominant position in the industrialized East, the Pennsylvania is dependent to a large extent on activity in the heavy industries. An examination of the following table reveals the type of traffic most important to this railroad.

Year	Products of Agri.	Animals & Prods.	Products of Mines	Products of Forests	Mfrs. & Misc.
1932	8.81%	3.98%	28.21%	1.86%	23.07%
1933	7.99	4.03	30.09	1.98	25.42
1934	7.35	3.99	30.09	1.75	25.72
1935	6.44	3.15	29.34	1.91	28.81
1936	5.96	2.79	29.84	2.07	30.92

Source: "Mundy's Earning Power of Railroads" Page 596.

While Pennsylvania's traffic is well diversified, the balance is in favor of heavy goods as against consumer goods. Normally manufactures and miscellaneous contribute about 35% of total revenue and products of mines a similar amount, the most important item being bituminous coal then iron and steel products. Agricultural and animal products contribute about 12% in normal times. Passenger traffic is highly important and contributes about 16% of gross revenues.

Earnings

The Pennsylvania has paid a dividend on its common stock in every year since its organiaation in 1847 a feat unique among rails. As can be seen by the following table earnings have been large and fairly stable for a good many years.

Year	Avail. for Fixed Chgs.	Fixed Charges	Times Earned
1921	$75,552,147	$51,244,478	1.47
1922	100,683,122	68,301,064	1.47
1923	116,852,088	65,314,011	1.79
1924	108,912,474	70,777,797	1.54
1925	136,820,544	74,600,220	1.83
1926	145,712,883	78,144,924	1.86
1927	146,765,908	78,605,612	1.87
1928	161,452,326	78,944,713	2.05
1929	181,536,741	80,158,224	2.26
1930	146,876,152	78,066,333	1.88
1931	97,671,819	78,126,625	1.25
1932	94,423,254	80,849,718	1.17
1933	102,187,908	82,906,739	1.23
1934	100,255,074	81,439,380	1.23
1935	105,179,777	81,329,979	1.29
1936	118,316,549	79,574,457	1.49

Source: Mundy's "Earning Power of Railroads" Page 600.

Depending as it does upon heavy industry traffic it was only natural that the Pennsylvania was hard hit by the depression. However, fixed charges were earned 1.17 times in 1932 the low for the depression. Recovery took place in line with the rising activity in business and in 1936 fixed charges were covered 1.49 times. Although earnings will not be as large in 1937, nevertheless, fixed charges will be adequately earned.

The stability of the Company's earnings is due to a large measure to non-operating income derived from investments in affiliated and other companies. Such investments are carried at about $680,000,000 on the Company's balance sheet, and produced about 30% of gross income in 1936 and

35% in 1935.

The elimination of the emergency freight surcharges in 1936 was a blow to the Pennsylvania's revenue. However, increased traffic more than made up for this loss and it is expected that the promised freight rate increases will enable the railroad to show sizeable per share earnings when business is again back to normal.

Near Term Outlook

Occupying as it does the dominant position in Eastern Trunk Line territory, the Pennsylvania is dependent in a very large measure upon revival of heavy industry, which, although declining sharply in the latter part of 1937 and the beginning of 1938, nevertheless, appears to be definitely under way.

A sound current financial position has characterized the Pennsylvania for a good many years. On October 31, 1937 the Company reported current assets, including cash of $47,752,879, equal to $184,090,181 which was almost three times current liabilities of $69,543,621.

The Company has only $6,819,000 in debt maturing within six months which will unquestionably be taken care of without any difficulty. The Company came through the depression with such strength that it was able to refund $167,000,000 of bonds during 1935-1936, effecting a reduction of $2,500,000

in annual interest charges.

Longer Term Outlook

Largely because of its rugged physical character and its strong strategic position the Pennsylvania was able to emerge from the depression in a very advantageous competitive position. Indicative of the road's superior physical condition is the fact that out of approximately 15,500 miles of owned main tracks including about 5,200 miles of second and additional tracks more than half is laid with 130-pound or heavier rail, the new standard is 192-pound.

High standards coupled with superior management have enabled the road to achieve outstanding efficiency. Maintenance expenditures were reduced during the depression relative to the decline in gross. However, operating efficiency remained high as attested by the transportation ratio which virtually recovered 1929 levels in 1936. In this respect, Pennsylvania's record is substantially better than those of its major competitors.

An alert management has placed the Company in an excellent position to return to an earning power of prior-depression levels as general business activity reaches normal. Electrification of lines, operation of rail-air, coordinated bus and freight-pick-up services, are all factors

contributing toward improvement in earnings, largely through retention of traffic formerly diverted to other transportation channels. Since operating efficiency and financial strength have been unimpaired by the depression, the Company is in a position to capitalize on increased traffic. Because of its diversified freight and since a large portion of its other income is derived from eastern railroads, better general industrial conditions in the East would benefit the Company.

When viewed in long-range perspective, outlook for the Pennsylvania Railroad assumes a far more promising aspect than in the case of the average domestic steam carrier. With its 10,000 odd miles of lines traversing the highly industrialized central eastern region, the road ranks as the country's greatest in point of freight tonnage hauled and revenues obtained. It is very difficult to conceive of any resumption of the general business recovery movement which would not reflect in the Company's earnings. Of aid in this direction would be any additional freight rate increases sanctioned by the Governmental regulating agency.

Investment Status

Although the Pennsylvania Railroad is affected adversely by slumps in business activity, its operations are so wide-spread and so diversified that profitable operations are

almost assured. The road's consistent earning power is shown by the fact that dividends have been paid on the common stock in every year since 1847. This record is unique in railroad history. The Pennsylvania is in excellent physical shape, current financial position is strong and the management is exceptionally capable. However, the road's margin of earnings above fixed charges is not sufficiently large or stable to warrant the highest ratings for its debentures or common stock.

The Mortgage bonds are suitable for investment accounts requiring a high degree of safety and stability of principal. The debentures are suitable for those who desire safety of principal but are willing to assume the risks entailed in securities whose prices fluctuate, to some extent, with general market conditions. The common stock, although dividends are secure, is, nevertheless, semi-speculative and only suitable for those who are able to assume the risks involved in the market fluctuations of speculative issues.

Poor's Rating		Price Range 1937 High	Low
A**	Pennsylvania Railroad Cons. Mortgage 4s 1943	113	108
A**	Pennsylvania Railroad Cons. Mortgage 4s 1948	116	109
A**	Pennsylvania Railroad Cons. Mortgage 4½s 1960	126	115
A**	Pennsylvania Railroad Gen. Mortgage 4¼s 1981	111	95
A**	Pennsylvania Railroad Gen. Mortgage 4¼s 1984	112	95
A**	Pennsylvania Railroad Gen. Mortgage 4½s 1965	116	101

Poor's Rating		Price Range 1937 High	Low
A**	Pennsylvania Railroad Gen. Mortgage 5s 1968	123	106
A*	Pennsylvania Railroad Debentures $4\frac{1}{2}$s 1970	107	87
A*	Pennsylvania Railroad Conv. Debentures $3\frac{1}{4}$s '52	111	82
B*	Pennsylvania Railroad Common Stock -	50	20

CONCLUSIONS

It is becoming increasingly apparent that the adversities of the last depression served to conceal a serious retrogression in the railroad's competitive position. In early 1937 when business activity was approaching former peaks it was suddenly observed that the rails had failed to recover anything like their former earning power. A study and careful analysis of the situation revealed the surprising fact that the railroad system, as a whole, was economically unsound - that earnings were not sufficient to support the huge capitalizations with which most roads were burdened. With the advent of the automobile and truck the rails lost their monopoly of the nation's transportation business, and in a few short years fell from an apparently secure position to an almost hand to mouth existence.

The causes of the railroad's predicament have been carefully outlined in Part 1 of this paper. Although the railroad system is economically unsound as presently constructed it is, nevertheless, essential to the well-being of this country and must be continued in some way or other.

The problem of railroad readjustment has recently attracted considerable attention from the Federal Govern-

ment. At the present time the ICC is holding hearings on the advisability of granting freight rate increases to aid the railroads over the current recession in business and to place them on a sounder basis. Of course, it is apparent that a freight rate increase will not correct the unsound position of the railroads, nor will it correct the mistakes of past managements.

A step to aid the railroads was made in the first part of February 1938 when a bill was introduced in Congress to revise the bankruptcy act as affecting railroads. On last January, nearly one-third of the nation's railroad mileage was in the hands of trustees where most of it had been for two to five years. Yet no major system has been reorganized. The Bankruptcy Act was designed to expedite reorganizations, in that it provided representation to all security groups. In part because the procedure was involved, but primarily because rail earnings demonstrated no impressive recovery, it was impossible to effect conservative capitalizations and yet award representation to equity interests. Consequently, the movement, led by Senator Wheeler, to modify bankruptcy legislation or to return to equity receiverships, has gained in importance. As a result future reorganizations may fall heavily upon junior bondholders. It is very probable that the reorganizations in the future will be far more drastic than those in the past, but the railroads in the long-run

will benefit, for fixed charges will be cut to the bone and will be in line with earning power.

In any question of such economic importance as the well-being of the railroad industry, the Government is bound to take an active interest and has submitted a number of plans among them the ICC's Railroad Consolidation Plan which outlines an involved procedure to combine the railroads of the country into twenty-one systems. These plans have each produced violent criticism.

In order to better understand the proposed plans the most important features of each are outlined below.

Plans of the Government

Two definite schemes are now being considered by the ICC as possible solutions of the pressing railroad problem, both involve enlargement of the Government's power over the carriers and would be directed toward consolidation or coordination.

One proposal would involve unified operation of the railroads by one private corporation. This corporation, Federally-controlled at the outset, would have the power of eminent domain to condemn properties of those carriers which would not come voluntarily into the unified organization. The corporation would issue its own obligations to

present security holders and no cash would be paid out in consolidation.

The general plan is to have a Federal Railroad Administrator, a non-political officer somewhat like the Federal Coordinator, who would set the machinery of compulsory unification in motion. A Federal corporation would be set up and the carriers would be operated as a single system. This plan was advanced by ICC Commissioner Carroll Miller.

A second Government plan provides for the creation of a permanent "Transportation Board" with broad discretionary authority and administrative powers. The new board, whose exact function has not yet been decided upon would be similar in a number of respects to the Federal Coordinator of Transportation which was created by the Emergency Transportation Act of 1933.

Formation of the board would accompany new legislation enlarging the Federal Government's power over the railroads, and "putting teeth" into measures to require consolidations, coordinations, and all types of expense saving projects.

The power to compel such programs would either be vested in the new board, or in the ICC in the exercise of its quasi-judicial function. In the latter event, the new board would be the investigating and recommending agency with the ICC acting in the manner of a court.

The new board would not be affiliated with the ICC, although the duties of the two bodies would be inter-related. Members of the board would be appointed by the President and would be drawn from Government, labor and private quarters.

While the plan still is in the formative stage, its proponents are said to feel that only through some such plan can the railroads be rehabilitated and saved from public ownership. They feel that large savings can be accomplished in railway operations through consolidations, coordinations, reorganizations, elimination of duplicating facilities, abandonments and various other ways.

The Plan of Railroad Managers

According to the managers and directors of railroads the solution of the problems lies in widespread remedies, ranging from revision of freight rate structures to reorganization of the ICC.

In the opinion of rail circles the solution of the problem lies along the following lines.

1. Because of high prices, freight structure should be revised to equalize the factors of cost of service and worth of service.

2. Land grant rates should be abolished.

3. Government should reimburse roads for losses resulting from special drought rates.

4. Regulation by ICC of maximum and minimum intercoastal and inland waterway rates, since the present maximum rates only are regulated.

5. Prompter action by the ICC in all rate decisions.

6. All forms of transportation under one regulatory body and elimination of subsidies to barge lines.

7. Permit railroads to own and operate without restriction in their own territory, buses, trucks, airplanes, steamships, pipe-lines, etc., as transportation companies, all under ICC jurisdiction.

8. Charge trucks and buses mileage toll for use of main public highways.

9. Eliminate subsidies to shipping lines where they take away rail traffic.

10. Agreements with labor providing for adjustments in wages in a ratio to operating revenues.

11. Elimination of restrictive union working rules.

12. Possible appointment of a Railroad Labor Coordinator to take care of labor difficulties.

13. Easing of Federal and state tax burdens.

14. Expense of grade crossing eliminations should be borne by public, with rails exempt from taxation thereon.

15. Impound funds charged to yearly depreciation to pay

for new equipment.

16. Revise ICC Act and Transportation Act to reduce ICC authority to about same levels it held in 1905.

17. To lower future transportation costs, establish long-term sinking funds to extinguish present debt and use cash or stock issues for additions and betterments. *

As can readily be seen by a study of the plans the railroad interests propose remedies which would patch up the existing system without capital readjustments or change in the status quo. Obviously this type of proposal would not attack the railroad problems at their sources, it would not eliminate the economic weaknesses which are present in the railroad system as it is now constituted.

The Government plan on the other hand is more drastic and attacks the problem by eliminating the weaknes es which have produced the unfavorable condition the railroads are now in. It is quite clear that the plan which provides for some type of coordination and elimination of unprofitable and competiting mileage as well as cutting capitalizations down to a point where they may be supported by earning power, is the more feasible.

The predicament of the rails will not be solved this

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* The Wall Street Journal, February 18, 1938 Page 11.

year or next; it is too serious and complex a problem to attack without long deliberation and study. The ICC will grant a favorable rate increase in March and will lend money to the weaker roads until business improves. Before a plan for the rails has been agreed upon 1940 will be here and the Democratic Party would not be so foolish as to attempt to coordinate the railroads during a presidential election year. The problem of the railroad, therefore, will not receive sufficient serious consideration until the situation has become so acute that drastic reorganizations must be resorted to, and if the railroads wish to escape public ownership, capitalizations must be drastically reduced in line with earnings, thereby, eliminating the economic weakness which rate increases, stream-lined trains, mergers and the elimination of unprofitable mileage, could never hope to accomplish.

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N-O-T-E

The material for this thesis was obtained largely from the statistical information published by Poor's Publishing Company and the publications of John Moody. The Encyclopaedia Britannica provided a background for the study and Mundy's "Earning Power of Railroads" was the source of traffic and earning power tabulations. Such books as Woodlock's "Anatomy of a Railroad Report" and Guthmann's "Analysis of Financial Statements" were of considerable aid in analyzing the statistics of the Interstate Commerce Commission Reports, which were used freely. Snyder's "American Railways and Investments", Van Oss's "American Railroads as Investments", Chapman's "Railroad Mergers" and Hungerford's "The Railroad Problem", although old books, nevertheless, presented facts which when brought up to date, were useful. The remaining books in the bibliography were of little value in preparing this thesis. The periodicals and newspapers were used as a source of current information.